Duquesne University:

Psychiatry in Industry

Psychiatry in Industry

BY

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DEDICATED TO

MR. PERCY STRAUS

WHOSE FORESIGHT AND CLEAR VISION HAVE MADE POSSIBLE THIS, THE FIRST PSYCHIATRIC APPROACH TO PERSONNEL WORK IN BUSINESS; WHOSE SANE OUTLOOK AND HELPFUL GUIDANCE HAVE MADE IT PRACTICAL

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TABLE OF CONTENTS

FOREWORD xiii

I. INTRODUCTION 1

II. WORK FAILURES—THEIR STUDY AND TREATMENT.... 8

A. Nature, Size and Importance of Problem

B. Methods of Study

C. Illustrative Cases—showing four different groups dealt with by the Psychiatric Clinic

(1) *Those where psychiatric treatment right within their own department secures satisfactory results*

(2) *Those where transfer is necessary*

(3) *Those that after initial psychiatric examination are recommended for lay-off*

(4) *Those where treatment has been tried but has failed*

D. Results Achieved in the Study and Treatment of 500 Problem Employees

E. Conclusions

II. SELECTING EXECUTIVES 49

A. The Importance of Sound and Practical Methods

B. The Development of a Psychiatric Technique for Selecting Executives in a Large Department Store

C. Illustrations of Method—Showing Procedure Followed in Two Typical Junior Executive Jobs —Head of Stock and a Section Manager

Head of Stock

(1) *Summary of Duties of Head of Stock*

(2) *Personnel Qualifications for Head of Stock*
(3) *Typical Cases of Good and Poor Material for Head of Stock Job*
(4) *Practical Application of the Method to All Individuals Promoted to Head of Stock Job*
(5) *Results Achieved*

Section Managers

(1) *Job Specifications for Section Manager*
(2) *Personnel Qualifications for Section Manager*
(3) *Illustrative Case Studies of Section Managers*

D. Qualities Distinguishing Heads of Stock from Section Managers
E. Conclusions Regarding the Development of Methods for Selecting Executives

IV. Scientific Job Placement and Guidance for Young Workers 85
A. Value of Suitable Guidance and Preventive Aspect of the Problem
B. Illustrating Work in this Field by Taking a Sample Department of 400 Junior Employees and Showing What Was Accomplished Through Careful Study and Suitable Job Placement
C. Conclusions as to Method and Personnel Procedure in Handling Young Workers

V. Job and Personnel Surveys 108
A. Value of Such Surveys to the Management; the Department Head; to the Employees Themselves; to the Training Department, the Employment Department, and the Medical Staff
B. The Psychiatric and Psychological Viewpoint in Procedure
C. Methods Employed

(1) *Studying the Department as a Whole*
(2) *Studying the Job*
(3) *Studying the Personnel*

D. Presentation of Material Gathered in Survey
E. Products of Survey

(1) *Modification of Job and Departmental Conditions That Have Affected Unfavorably the Worker's Output, His Work Ability, His Mental Attitude, His Physical and Mental Health, etc., with Illustrative Material*
(2) *An Individual Personnel Program for Each Worker, with Illustrations*
(3) *Discovery of Problem Employees and Their Treatment, Adjustment, Transfer or Lay-off, with Illustrations*
(4) *Discovery of Promotional Material—Illustrative Cases*
(5) *Reorganization of Employment Procedure for the Department—Illustrating Work Done on a Typical Department*
(6) *Improvement of Training*
(7) *Reëducation of Department Manager*
(8) *Conclusions*

VI. Psychiatry in Industrial Health Work 157

A. The Value of the Psychiatric Viewpoint and Technique in Industrial Health Work
B. Common Problems Met by the Psychiatrist in a Mercantile Medical Clinic

(1) *Chronic Hospital Users—Illustrative Cases*
(2) *Compensation and Sick Leave Cases—Illustrative Cases*
(3) *Situation Reaction Cases—Illustrative Cases*

(4) *Fatigue Problems—Illustrative Material*
(5) *Frank Cases Where Nervous and Mental Disease Is Suspected*
(6) *Conclusions Regarding Organization of Industrial Health Work so That the Large Group of Functional Cases May More Effectively Be Taken Care of*

VII. A Psychiatric Guide for Employment Interviewers 183
A. Function of the Interviewer
B. Importance of Detailed Knowledge of the Job and Its Environment
C. Methods Employed in Conducting the Interview
(1) *Personal History—Suggested Program*
(2) *Personality Study—an Outline Is Given Covering Intelligence, Motor Characteristics, Temperament, Special Traits, Nervous and Mental Diseases, etc.—a Detailed Procedure Is Suggested*
(3) *Physical Condition*
(4) *Home Problems*
D. Evaluation of the Psychological Study
E. Summary of the Data as a Basis for Diagnosis
F. Follow-up on New Employees
G. Record-keeping
H. Periodic Analysis of Work
I. Conclusions

VIII. Qualities Distinguishing Good and Poor Sales Clerks 222
A. Object of Study to Formulate an Employment Technique that Will Enable the Interviewer to Distinguish the "Sales Type" from the "Non-Sales Type"
B. A Detailed Psychiatric and Psychological study

Was Made of a Large Group of "Best" and "Worst" Sales Clerks: Statistical Findings Are Presented under the Following Heads:

(1) *Age*
(2) *Sex*
(3) *Schooling*
(4) *Marital Status*
(5) *Home Problems*
(6) *Selling Experience*
(7) *Knowledge of Merchandise*
(8) *Intelligence*
(9) *Physical Findings*
(10) *Personality Traits, Types and Characteristics*

C. Summary of Findings
D. Personnel Qualifications for a Successful Sales Clerk
E. A Classification of Sales Departments in a Large Mercantile Establishment
F. How to Maintain a High-grade Sales Force

IX. Automobile Accidents and Their Prevention.... 266

A. Seriousness of the Problem in General
B. The Way It Was Attacked by a Large Department Store
(1) *A Better Employment Technique*
(2) *The Development of a Training Program —a Motor School*
(3) *A Reorganized Departmental Approach*
C. How the Employment Technique Was Developed
(1) *A Study of the Physical and Mental Processes Involved in the Operation of an Automobile*
(2) *With This as a Background, the Devel-*

opment of Objective Methods—Psychological Tests
(3) *The Standardization of these Tests on Old Drivers*
(4) *A Psychiatric Study of Old Drivers to Determine Whether There Were Clinical and Constitutional Sources of Accidents Which Were Not Subject to Satisfactory Evaluation by the Psychological Procedures*
(5) *The Statistical Evaluation of All the Material Gathered in the Entire Study*
(6) *Personnel Qualifications for Drivers*
(7) *Practical Application of Technique to Routine Employment Work*
D. Results Achieved from the Entire Program
E. Conclusions

X. Psychological Tests in Business 294
A. Introduction
B. Testing Service for Psychiatric Clinic
C. Testing Service for Employment Office
D. Test Development
E. The Tests Themselves
F. Illustrative Test Material
(1) *Table of Test Batteries*
(2) *Test Norms*
(3) *Test Descriptions*
(4) *Test Samples*

XI. Appendices 349
Forms Used in Studies
A. Social History Form
B. Personality Study Form
C. Job Behavior Form

Index 361

FOREWORD

A FOUR years' study of personnel problems in one of the rgest mercantile establishments of this country by a group f psychiatrists, psychologists, and psychiatric social orkers, organized into a well-integrated unit and approaching these issues from a broad clinical and social case ngle, as well as laboratory viewpoint, has resulted in the athering of material, and the development of procedures mewhat novel to common personnel practices.

Believing that our experience, methods, and results ill be of considerable value to all serious-minded stuents of the human factor in production, and offering as ur chief excuse the large number of requests we have had r information about practical developments coming out the psychiatric and psychological approach to employent, training, management, and health problems amongst orkers, "the sort of psychological tests that have been und most useful, and the manner of their administran," "the application of mental hygiene principles to nployee behavior problems, and the results achieved," c., we are presenting this volume.

In it our purpose has been to cover certain main trends our work, certain essential aspects of our program in e way of a concrete illustration of methods employed d results obtained, rather than theoretical generalizans about psychiatry and mental hygiene.

We have selected from a considerable body of case aterial and carefully prepared reports a few typical udies representing our approach to various personnel

problems. The articles chosen have already been presented to groups of physicians, psychiatrists, psychologists, social workers, business executives, personnel people, and students in these fields, in lectures at McGill University, Toronto University, Columbia University, and addresses delivered at meetings of the National Dry Goods Association, Personnel Federation, Associated Industries of Massachusetts, the Boston Board of Trade, the Canadian National Committee for Mental Hygiene, the Massachusetts Mental Hygiene Society, the American Orthopsychiatric Association, as well as various medical groups that have been interested in these developments.

The chief implications of our approach have been in the direction of individualization of personnel procedure; the getting away from static cut-and-dried, yard-stick methods, the pigeonhole trend characteristic of recent developments, particularly seen in employment work and mass-production concepts in personnel. Why some men fail and others succeed is made more clear when individual workers themselves are carefully studied, and the determining factors in their careers adequately understood.

Whatever we have said with reference to workers and their problems is just as applicable to business and industry in general as it is to the mercantile field. The same issues of scientific employment and training technique; of detecting and effectively handling the problem employee and the promising employee; of studying problem departments; of placing and guiding junior workers; of taking care of the mental health as well as the physical health of employees, etc. all bear with as much emphasis on an industrial plant as a department store.

The greatest usefulness of the book will be to professional groups—physicians and psychologists; to business executives; to personnel people; and to students in medicine, psychiatry, psychology, and personnel work. What-

ever value it has is probably not so much in its content as in its insistence on a method of approach and a formal discipline in routine personnel procedure.

Giving due credit to those who have made possible the success of this work, whose daily contributions to good personnel technique can be but poorly mirrored in any such hasty and brief abstract of cases and scientific method as we have attempted to present for illustrative purposes here, is in itself an impossible task.

Miss Stella Engel, our research psychologist, assisted in the preparation of the section on "Job and Personnel Surveys," and contributed the entire chapter on "Psychological Tests in Business."

Unquestionably the ideal working team is composed of a psychiatrist, a psychologist, and a psychiatric social worker. These three constitute a mental-hygiene unit, the minimum basis for undertaking a constructive and sound research program into the personnel problems of industry or business.

V. V. Anderson.

Psychiatry in Industry

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CHAPTER I

Introduction

Slowly has there come about in the business world, as in other fields, such as medicine and engineering, a demand for more accurate and objective tools to deal with the human factor than those contributed by practical common sense and experience.

This demand is responsible for the enormous interest in psychological tests for the measurement of job fitness and vocational aptitudes of applicants, and for whatever short-cut methods that aid in the selection of new employees.

This interest has become so general that by now there has come to be a fairly widespread development, perfection and trying-out of these measures, and in various parts of the country, many concerns are utilizing psychological tests in employment.

At first, much enthusiasm prevailed as to the immense possibilities to be derived from these laboratory tools, inasmuch as many believed that it would, in the long run, be feasible to exactly measure the abilities and capacities of a given worker, and determine with certainty what particular niche he could fill. Then it would be simple enough to train him in the one best way to do his job and, like all other good machines, his actual performance would become a simplified and predictable result.

But somehow these dreams did not work out satisfactorily in everyday life. Unfortunately, such a conception of human nature is too simple and too limited to do justice to the actual facts; for work failure in the majority of instances does not so much seem to be due to the lack of ability—that is, as far as measurable aptitudes for the performance of the task are concerned—as to the presence of other factors of a more dynamic nature that influence the total personality and the general health of the worker, that handicap or interfere with the use of such abilities as he actually possesses.

The significance of these issues in affecting the work and life adjustments of the average employee will be emphasized repeatedly throughout our discussion of work problems, and that static and fixed conception of man's nature that conceives of measurable and rigid pigeonholes, into which each individual may be neatly placed, can receive little support, when actual cases of failure and success are unraveled, analyzed, and presented in the light of all the factors underlying each case.

Anyone who studies and works with large numbers of actual cases of job failure and job success will find wholly inadequate that conception of vocational guidance that implies the possession, by each individual, of some special ability to do particularly well some one particular task, and that rests the solution of one's work career on the application of certain trick methods to discover these supposed abilities. As a matter of fact, most people can do a great many things well, if they are sufficiently interested, have developed good enough work habits to apply themselves effectively to a task, have a definite appetite for the thing they are doing, know how to work well with people, and have a healthy attitude towards themselves and life's realities. Wherever failure is found, an analysis of its causes will disclose far more complex

issues than the mere matter of testable ability to perform the tasks of a given job.

As we present the material of this volume, it will be clearly seen how valuable psychological measures are as an aid in enabling the diagnostician to gain certain sidelights on his case. But never in any instance do we believe they can be trusted to select and place people for us—a program involving the diagnosis and understanding of the total personality, and the adjustment possibilities of the whole individual.

Tests will tell us certain things we need to know about a person—his intellectual level, his knowledge of arithmetic, his motor dexterity, his tendency to accuracy, or speed of performance, etc.; but one may have all of these qualities well enough developed and yet, because of personality problems, be a poor personnel risk.

Our own work lays great stress on psychological tests, just as any good physician utilizes laboratory aids—X-rays, blood tests, etc.—in his routine clinical work. But to him these are frankly aids in getting at certain aspects of his case and not means for comprehending the total picture presented by his patient. So in studying the worker by means of psychological tests are we eliciting only certain mental processes, and these not always the most vital ones.

Industry and business will never get any further in the selection of employees through the development of certain job tests alone, than surgery will make progress through concentration on the invention of surgical knives. Both tests and knives must be in the hands of expertly trained people, and by this one does not mean people expert in the making of knives and tests, but expert in a knowledge of the human organism in health and disease—the human organism adjusted and maladjusted—and the physiological, pathological, and social factors that underlie or inter-

fere with its successful functioning. Tests may become good diagnostic tools in the hands of a trained clinical diagnostician, when properly buttressed by a well-rounded clinical summing up of the individual as a whole.

This is the clinical, or psychiatric, viewpoint—that viewpoint which stresses all the factors in a given case, the physical, mental, and social issues. This is a "total situation," psychology, as opposed to the purely test psychology, or job-ability and job-aptitude psychology. This viewpoint considers the field of success or failure, at work, as a broad and complex one—just as broad and complex as is human nature itself—the understanding of which is built upon the contributions of various sciences, general medicine, psychiatry, psychology and social case work, etc. Sciences which are furnishing us an increasingly clearer conception of the processes, mechanisms and factors that underly human adjustment.

Progress in understanding and dealing with individual cases of work failure and work success lies in the direction of a broad and sound clinical foundation for the personnel worker. In this field of personnel work a formal discipline is needed—a discipline that will furnish us methods and technique based upon sound and acceptable case work. Work already has been done in other fields than industry and business, in attacking human behavior problems—notably among public-school and college students, and social failures that point out the way for a more sound and constructive approach to personnel problems than that now commonly employed in business.

Of course, there has been for some period of years a growing interest and appreciation of the broader human factors involved in adjustment to work. This, as we shall show, is laying the foundation for a psychiatric program in personnel work.

As a product of this new viewpoint in industrial life

we have witnessed the development of welfare movements to relieve personal and domestic situations among employees; we have seen the organization of medical facilities for the treatment of the sick and injured; specialized employment work; training departments; job testing; vocational selection, etc.; but all as separate and more or less independent entities.

In evidence of the confidence felt in these agencies, much money and valuable time and energy are being expended to select, place, train, and adjust workers to their jobs, treat those who are sick, and provide social and recreational measures when needed. But these movements, however excellent, have tended to become specialisms having little relatedness to one another—as far as a unified, purposive, and well-planned individual program that aims to bring about the best obtainable results routinely in each case. Too often have they pursued independent courses, each revolving on its own axis and finding a satisfactory end in its own immediate efforts.

The technique of relating these developments as part of a general study and program for each individual employee, aiming at his understanding, proper placement, satisfactory adjustment and development, is what in other fields would be considered the psychiatric method. But such an interest on the part of the psychiatrist is not administrative in nature. His service does not lie so much in taking charge of the management of different personnel activities and facilities as it does in being a consulting aid for the integration of all such diagnostic, adjustment, therapeutic, training, and development resources in their bearing on a given case. Psychiatry has, unfortunately but very naturally, been associated in the minds of the general public with the abnormal—the mentally diseased and defective. And in industrial life psychiatry is generally conceived to be interested purely in keeping out the

mentally handicapped applicant and laying off the mentally abnormal and mentally unsound employee.

While it is necessary that such work as this be carefully done, nevertheless it is such a small part of the actual interest and possible service of the psychiatrist in industry as to become negligible.

The psychiatrist, through his acquaintance with mental and physiological abnormalities, has secured a much deeper comprehension of the mental processes which take place in every individual, even in those regarded as unmistakably normal. Faulty ways of meeting situations, unhealthy mental preoccupations, inferiority feelings, anxiety states, fears and hatreds, irrational attitudes, pessimistic moods, prejudices, obsessing reveries, in the average normal person go undetected, and therefore receive no special care and consideration. But to these conditions in supposedly normal people may be attributed a large proportion of work failures, domestic difficulties, and serious social complications, to say nothing of their influence (when dominant characteristics of the personality) in creating that large army of work and socially maladjusted people so commonly called "radical agitators," "the unemployable," "the down-and-outers," and the "ne'er-do-wells."

It is our belief that the most important element in labor difficulties is the mental condition of the worker, underlying which the psychiatrist has found physical, mental, and social factors that produce unacceptable reactions, create faulty attitudes, and develop mental patterns and habits that mold the worker's character and personality and determine his career. These particular issues form the subject-matter and the routine daily concern of the psychiatrist in industry. At the present time he is the only person specifically devoted to actually assessing the

environmental and physical, as well as mental, factors in such situations.

In the following pages we will endeavor to present specific illustrations of the psychiatrist's approach to the study and treatment of the job misfit; to the challenging problem of selecting executives; to the socially important question of job placement and guidance of young workers; to the selection of automobile drivers and the mental and physical causes of accidents; to the qualities distinguishing good and poor sales clerks; to sound and practical methods in employment work; to job and personnel surveys—how conducted and what results can be expected; and finally to psychiatric problems in mercantile health work.

It can be seen that contributions to three outstanding fields—personnel, management, and health work—have been chosen for presentation here. The guide to employment, psychological tests in business, selecting drivers and sales clerks are representative of certain phases of our work in connection with employment procedure. The other chapters discuss methods followed by management, personnel workers, and industrial physicians in dealing with some of their most common problems.

CHAPTER II

Work Failures—Their Study and Treatment

About 20 per cent of the employees of mercantile establishments—and this is probably true of other business and industrial organizations—are what may be called "problem" individuals. That is, as personnel material they are either liabilities or potential liabilities to the business man. It is from this group that are drawn the repeated transfers from job to job, or resignations, or lay-offs. These are the work failures that in the majority of cases are a drag on any organization.

As the employer sees these individuals they are production problems, or chronic health problems, or chronic attendance problems, or serious attitude problems, or marked disciplinary cases, and the like, and from his viewpoint he is better off without them.

As the psychiatrist sees them they all present distinguishing physical and mental characteristics that underlie and explain not only their job maladjustments, but faulty adjustive efforts and failures in other life situations. In studying the life histories of these individuals, and analyzing their careers, he is impressed with three outstanding causative factors commonly underlying work failure—(a) a maladjusted personality; (b) specialized job disabilities; (c) faulty physical conditions.

Of course, such cases can be dumped wholesale into the community to shift for themselves. This might, after all, be a simple and easy way of solving the entire problem, for it is common enough for the Management to say, "we

are not running a charitable institution, why should we feel any responsibility in this matter?"

But there is another viewpoint, and that is the medical and mental hygiene viewpoint—that many of these individuals may, through proper study and treatment, be adjusted and become assets to the employer, thus cutting down turn-over among employees and increasing production efficiency. A few case summaries presented further on in this study demonstrate what can be accomplished in this direction, and as our statistics show, a sufficiently large number of problem cases will improve under psychiatric treatment to make the application of such measures profitable—not only in terms of human salvage—but in terms of dollars and cents.

And then who will say, after all, that business and industry are going to escape the definite social obligations involved in their increasing contribution to that large army of misfits who are bandied about the community from one store to another, or from one industry to another; out of work a large proportion of the time; partly supported by family, or friends, or churches, or social agencies, or institutions—and furnishing the richest possible soil for the development and growth of delinquency, dependency and mental disease—conditions that become the joint burden and responsibility of the community as a whole; conditions often traceable to factors that on the job render the individual an unsatisfactory employee and lead to resignations and lay-offs.

Constructive work here is possible, and results are most gratifying, when one reviews the case records of fairly well adjusted and productive employees who had at one time been a liability to their employers and to their families.

Business responsibility does not lie in the direction of creating facilities for the custodial care of human failures,

or for attempted cure of apparently hopeless work maladjustments. But certainly something is to be said in favor of a conscious responsibility on the part of business for the creation of facilities that would provide the early recognition, careful diagnosis, treatment and prevention of factors that later lead to such unfortunate social results, following the lay-off, or resignation, of problem employees. This is an ideal that guides the psychiatric approach to industry—an ideal that is eminently practical, that is founded on good business sense as well as ethical principles. I have been tremendously impressed with the great therapeutic possibilities to be found in a department store, in connection with psychiatric treatment work of problem employees.

Experience has taught that the best sort of staff for dealing with the varied problems found among workers, consists of a psychiatrist, a psychologist and a psychiatrically trained social worker. The same sort of a working team has proved most successful in other fields, where the problem has been human behavior. The contributions of these three groups—the medical, the social and the psychological—when combined in a well-organized unit, form the ideal grouping and the minimum basis for an adequate program of diagnosis and treatment of work maladjustments among employees.

The methods employed in conducting a complete psychiatric study can, for practical purposes, be roughly classified into the social history, the job behavior study, and the physical and mental examination. These four fields go together to make up a thorough-going picture of the whole individual—his behavior to his work and to major life situations, as well as those influences—constitutional, or home, or school, or work—that have contributed most to his career.

The social history includes a health history (both phys-

ical and mental); the family history, with particular reference to present family situations and home problems of an economic, health or psychological nature—discontent, friction, unwholesome atmosphere, impaired family relationships, etc.; educational history, including academic training, specialized vocational equipment or considerable job experience—which in itself provides expertness at work—and finally, the work history—leading the individual to give an account of the nature of his first regular job, his attitude toward the work, the salary he received, the length of time employed at it, his reasons for leaving, the period of idleness before his next job, what its nature was, his mental attitude toward the work, his salary, the length of time he remained employed at it, etc., etc.—bringing him up to the present time. This may give us a splendid picture of his work adjustment, and always throws light upon his personality make-up.

The job adjustment study conducted by the psychiatric social worker includes a descriptive account of the employee's behavior at work and adjustment to his present job, his manner toward customers, associates and supervisors, his interest in and concentration on what he is doing, his speed and accuracy at work, his neatness at work, his ability to perform the task, his selling technique, the impression he makes on others, his initiative, his knowledge of merchandise, his steadiness in keeping at work, evidence of fatigue, and the result of health problems, or home, attendance and other problems, on his work and value to the department.

This carefully gotten work adjustment history differs fundamentally from the rating scale method so commonly employed, in that it becomes a descriptive account secured by a skilled, well-trained psychiatric worker, of the actual behavior of the individual at work, rather than the subjective interpretation by an untrained rater, of traits and

characteristics an employee is judged to possess. This rating method by means of which wholly untrained people size up an employee is full of dangerous possibilities, from the standpoint of the individual worker, as we shall point out later on.

The physical examination should be done with more thoroughness than is customary, in the case of the average patient in a medical clinic, where the concern of the physician is largely with the history of his present illness, the presenting symptoms of the case, and the actual examination of the organ, or organs, affected. In the psychiatric study, the physician at once questions the entire organism—not only in terms of actual organic disease, or functional disorder, but in terms of general tissue, or organ inferiority, or total constitutional defect, and the well-balanced and proper functioning, or impaired functioning of the machine as a whole.

The mental examination is composed of the intelligence and special ability studies, by means of psychological tests, and of the personality investigation, by means of the psychiatric interview.

The psychological method involves the objective and quantitative evaluation of certain measurable mental qualities. It is of enormous aid to the diagnostician, in that it furnishes him accurate and concrete evidence of the capacities of the individual, and enables him to compare the performance of individuals with each other, and with standards obtained from careful studies of large groups. It is, however, limited in practical application to only a few attributes of the mind, and could never of itself constitute a complete mental examination.

The psychiatric investigation is a more comprehensive method, and assesses the constitution and make-up of the entire personality. It is a clinical and dynamic approach that gives due consideration to the main trends in the

mental life of the individual—the so-called patterns he has established, his habits and ways of doing things, his attitude towards himself, towards others, and towards life situations in general; his interests; his hopes; his mistakes; his defeats; his fears; the conflicts and complexes, and the driving forces—emotional and instinctive—in his nature —all these are carefully evaluated as part of the psychiatric technique.

These two aspects of the mental examination are not to be viewed as opposing methods, in the sense that either one can give an adequate presentation of the important issues that must be considered in the mental study of a given case. On the contrary are they to be viewed as two parts of one whole. We should hardly expect the physician to discard his clinical findings in favor of the laboratory tests, or the laboratory tests in favor of the clinical findings. As a matter of fact, both are essential phases of a careful medical inquiry, in the case of any given patient.

All of the above information, together with the actual hospital record of the individual since his employment, and the store record, is summarized, analyzed, coordinated and interpreted by the psychiatrist and psychiatric social worker in a report that presents the essential facts in the physical findings and clinical medical history, a brief statement of the mental findings, the job behavior, and the social history with final conclusions and remarks—which include recommendations in the way of placement, or treatment, or disposition of the given case.

In the case of psychiatric treatment of problem employees, the main burden of follow-up and contact with the patient is carried by the psychiatric social worker, though the psychiatrist guides the treatment program and maintains occasional personal contact.

Problem cases may be divided into four main groups—A, B, C, and D.

Group A includes those problem employees whose main difficulties lie in their own make-up and the disorder of their own personality, rather than that they are in the wrong job. A careful psychiatric inquiry discloses the nature of these difficulties and the important causative factors underlying the problems presented. Treatment work on these cases involves adjustment of the employee right within his department. This is accomplished through frequent contacts with the psychiatric social worker or the psychiatrist, and a well-planned therapeutic régime is followed out, over a sufficiently long period to bring about changes in the behavior of the employee.

ILLUSTRATIVE CASES

Case 84—Female, aged 20 years.

Problem: "This individual is a high-cost-of-selling case. It costs too much to maintain her in her department. She does not earn her salary. Apparently is a health problem; is not aggressive and we wonder if she is well suited for this sort of work."

Physical Findings: Height, 5 feet 2 inches. Weight, 100 pounds. Undernourished. Her blood pressure is low and she gives a history of fatigue, indigestion, and insomnia. She has suffered a good deal from constipation and headaches, and goes to the hospital quite frequently for consultations.

Mental Findings: Her intelligence quotient is 96, which gives her an average normal intelligence classification. She

is good in her learning ability, and is quick in movement. She shows a fair grasp of problems presented, and has good judgment and insight. Her intelligence is undoubtedly much higher than the test score would indicate; she could have done better on verbal tests, but for her language difficulty. (Is foreign born and not thoroughly familiar with the English language.)

However, her personality make-up is of such a character as to handicap her in selling. She is stiff and formal, aloof, stilted, and impenetrable, but not of such a nature as to cause either antagonism or resistance. She is extremely courteous and well-mannered, but too shy and retiring. She is a very attractive young woman, with a distinct accent. She is very self-conscious and is much more concerned with the type of impression she is making on you than she is with focusing her attention on the situation facing her, whatever it may be, and adequately meeting whatever problem reality presents. She is introspective and mentally preoccupied. There is some evidence of a mental conflict over past personal problems. She has recently had a period of acute depression, lasting two or three weeks, and has not entirely recovered. There is some pessimistic reverie over her situation. However, her attitude towards the interview is thoroughly cooperative and constructive.

Social Findings: She is single and lives in a girls' club here in the city. Her father is dead. Her mother and four brothers and sisters are in Europe. She has no home problem, other than separation from her family. Her education abroad consisted of what would be about one year of college. She taught for two years before coming to her present work.

Job Behavior: At her work she made only fair contacts with customers. While willing and in no sense irritating, she was lacking in alertness and aggressiveness in

carrying out a sale. There seemed to be no great interest in the merchandise, nor is she effective in her relation with customers. She seems too much self-centered and too much interested in getting sympathy. She remains entirely apart from the other clerks, is not helpful to them, and while not disliked she obviously is not one of them.

Conclusions and Remarks: We have here a young woman, foreign born, with a distinct and what many customers have called "an attractive" accent. She is neat and makes a good sales appearance, being rather good-looking and well-dressed. She has normal intelligence, but presents many personality problems which interfere with her sales ability. It is believed that some of her difficulties will clear up under psychiatric treatment. At present she is running low sales, and is receiving a much higher salary than her department head feels that she is worth.

Follow-Up: Our first effort was to give her insight into the sort of problem she presented—that is, after we had reviewed all of the outstanding facts in her case, we endeavored to point out to her frankly the natural outcome of daydreaming on the job, neglect of important hygienic matters in lowering her capacity for energy output, and the part she herself was playing in making her work unproductive and unprofitable to the store.

Then we discussed freely with her a careful health régime covering diet, rest, sleep, recreation, and mental attitude toward her own personal problems, and decided on a treatment program in which she herself, under our guidance, was to work out a reconstruction of her own interests and attitude. In short, if possible of her main personality trends.

Her response to our efforts was gratifying. She quickly became oriented to the situation, following out rigidly our advice along hygienic lines, and made conscious attempts to extrovert her own personality—or rather, to tie herself

up with her job environment and the world of reality as she faced it each day. She made the most of the recreational contacts we provided for her, and, naturally, with better eating habits and freedom from depressed emotional states, her appetite increased, she put on weight, and her blood pressure became normal. Her insomnia disappeared when the conflicts and anxiety states no longer dominated her emotional life. After a while a noticeable change in her outlook and perspective was manifested, and a better attitude toward herself, her work and toward others appeared, while from the standpoint of her behavior on the job, our psychiatric worker gets the following report from her department head, "Miss —— has astonished everyone by turning in the best books in the department since she came to your office. Her sales record has been excellent, and the girl herself seems much brighter and happier. I personally am delighted with the results in her case."

We continued our treatment program through a period of several weeks. Her general health greatly improved, under a closely supervised régime, and her mental condition entirely cleared up.

Our study of her sales record showed the following—the week before we saw her, her sales were $163. They had been running at about this level for months. The following week they were $553. The next week they were $509. The next week, $513, and they have remained good up to the present time.

Ten months after our first interview with her, our follow-up record shows the following statement, "She continues to lead her department in sales."

The above case is a rather striking illustration of the influence that certain apparently unimportant issues have in interfering with the job success of a promising employee.

The problem itself is a simple one, and presents a rather common mechanism found in the usual run of problem workers (daydreaming, fatigue, insomnia, and a symptomatic depression). She was more promising material, however, than the average problem case, and proved to have a dynamic personality. Her attitude, interest, and wholehearted cooperation stood out as unusual throughout our entire contact with her.

The next case, while not such promising sales material, yet illustrates what can be accomplished when a serious effort to understand and deal intelligently with the adjustment difficulties in an employee is attempted. It illustrates the faulty attitude of a department head, who showed poor insight into the case of a young woman whom she had decided to lay off because she appeared "stupid" and seemed to her to be "poor material." This snapshot sizing up of people, so common in business, is the cause of many a work failure.

CASE 86—FEMALE, AGED 24 YEARS.

Problem: Referred by department head with the following statement: "She should be tested, as she is dull and stupid. I think she is poor material, and I have already made out a lay-off slip and sent it through to the general manager's office, but I should be glad to have you study her."

Physical Findings: Height, 5 feet 3 inches. Weight, 117 pounds. Physical examination disclosed some inflammation of the gums. She is in need of dental work. Her vision is defective and she should wear glasses. She has lost twenty-four pounds in the last four months and at the present time complains of loss of appetite, fatigue, and

"needing a rest." She has had a good many consultations with the hospital physicians recently for various minor complaints—"headaches, indigestion, insomnia, nervousness, run-down." Physical examination does not disclose any positive findings.

Mental Findings: *Psychological Study.* Individual secures an intelligence quotient of 88, which gives her a classification of dull average intelligence. She is somewhat slow in performing her psychological tests, but is accurate and painstaking. Her attitude was particularly good toward the examination.

Personality Study. She has a fair sales appearance. Is pleasant, agreeable, seems most anxious to please, is neat, fairly well dressed, but is not attractive or good-looking. She wants to succeed at her work, but is over anxious and fearful. She is naïve and too shy and retiring to be convincing. She has suffered much from insomnia, and periods of acute depression—worrying over her home troubles; is lonesome and homesick, yet realizing that she would not be happy to return home under present home conditions. She is too shut-in to make friends easily. So since coming to this country from Great Britain she has established no friendships. As a consequence, she feels out of place, disheartened, and cries a great deal. Of late, there has developed a great fear of losing her job, and inasmuch as she is totally dependent upon her weekly salary, she does not know what will become of her in case she does lose it. She does not seem to know how to make headway, and appears to be bewildered by the size and complexity of things in a great store—having had no experience in the past that would teach her how to meet such problems.

She is responsive, polite, and courteous, but obviously has a great deal of pessimistic reverie, with a marked lack of self-confidence. She becomes greatly frightened when

admonished or criticized by her superiors, and has frequently to leave the floor to go to the girls' room.

Job Behavior: Her contact with customers is good, though not particularly effective. They like her because she is anxious to please. However, on the floor and at her work she seems detached a great deal of the time, daydreaming, mentally preoccupied, and slow, but when awakened out of her reverie she is responsive and obliging. She seems timid in her relations with the other girls, and does not appear to know how to make herself easy and natural with them. Her reaction to her superiors is more that of a frightened child. Her knowledge of stock is inadequate.

Social Findings: Her mother is dead and her father married the second time. The stepmother has been very unkind to her. Her only brother was killed in the war, and her two sisters are married. She left home because of unhappy home relations, and determined to make her way in this country. Her education was of grammar-school character, but she has had several years' experience in selling in a store in a small town.

Conclusions and Remarks: We do not recommend lay-off in this case, but do advise adjustment work. We have here a young woman of good enough intelligence and fair enough sales appearance, who—providing we can secure an adjustment of her personality disorders—will make an acceptable sales clerk, inasmuch as she has a very responsible and dependable nature, is courteous and anxious to serve, and will give her best to the department. She is in need of a physical and mental hygiene régime. Her weight needs to be built up, her insomnia overcome, and her depression cleared. It is believed that if this can be done her detached attitude and obsessive reveries which seem to be the big factor in handicapping her sales ability will disappear.

Follow-up: After the report was made, the buyer took a different attitude toward this employee. She became more friendly and understanding in her relations with her. She talked with her and sought to be helpful. Realizing that much of the problem was shyness and timidity, based upon a strong inferiority background she made a different approach to her and sought to aid and guide her rather than to intimidate and frighten her when she made errors. She kept in close touch with the psychiatrist, who sought to give her an insight into her personal problems, and who worked out with her a more satisfactory way of meeting them. Her insomnia disappeared altogether within the first week. She regained her appetite, began to increase in weight and improve in her attitude toward herself and the difficulties in her job. Self-confidence increased. People seemed to be interested in her. The world took on a brighter outlook. Her sales record improved. She got acquainted with some of the girls—went out to luncheon with them. Began to drop into the rest rooms at the lunch hour, and took some part in the recreation of the other employees. She kept a diary, and we saw this note: "I am doing the best I can. My weekly quota is $250. My books show that I have made $289, this week. I am much better now and feel a little happy at times. I know what it is to be hungry, and sleep good too."

The psychiatric worker's report from the buyer, two weeks after she was referred to us for study is as follows: "She does anything you ask her to do. Is always cheerful about it. I would like to keep her. She is slow at getting things, but once she has them, then they're there." Later she states: "Very favorable. Special emphasis on willingness and good nature with customers."

She has been closely followed up, and the last report from her department is that she is doing well and they do

not want to lose her. She became, in the long run, a well-adapted and satisfactory employee.

F. R.—Female, aged 48 years. Sales clerk.

Problem: Acting peculiarly on the floor and complaining bitterly to her buyer of the persecutions of her associates, she was referred to the Conference office for psychiatric study.

In the office this woman showed an acute anxiety state; was in great distress with marked depression. She says, "I have not been able to sleep or eat for five whole days." (Cries and wrings her hands.) "I saw a tall detective lean over and whisper to a girl at the —— counter, and he said: 'You watch that woman; she is a thief and is stealing from the store.' Then there are two elderly women who have put the girls up to watching me, and the girls pass up and down the aisle, saying, 'Keep your hands off the ——, etc.' They whisper to each other about me and wink in a knowing way, as if to imply they are on to me. They are all talking about me."

A careful investigation was made, and it was disclosed that the employee had seemed ill for several days, but that for weeks she had been very "nervous," stayed to herself, was over-sensitive, and "imagined" things. There was no basis for suspecting her honesty; nothing was missing from her department and she was considered one of the most valuable sales clerks in the store, and regarded by all as thoroughly reliable.

Her aged mother had been seriously ill for several months, and at this time was near death. This employee was up with her a great deal at night, and as a result had lost much sleep; she also had to do the housework and the

cooking, which, with the arduous duties of the day as a sales clerk, had brought on acute fatigue. Such a condition, in a distinctly psychopathic personality, who for years had exhibited an unstable nervous system, on to which was engrafted an anxiety as to the possible death of her mother, also the possible loss of her job, inasmuch as she was falling down in her work, finally resulted in a full-blown mental disturbance.

In our examination we found her suffering from well-marked delusions of persecution, retardation of thought processes, with a depressed emotional state and slowing up of bodily movements.

She was placed at once under psychiatric care, reassured regarding her job and her department worries; a social service worker and nurse were sent to her home, and for a few days she was kept in bed and carefully nursed. In time she began to recover, returned to the store, was placed back in her old department under the best possible controlled conditions, in the hands of a buyer who was not only sympathetic, but intelligently understanding. In the end she recovered and is still with us, as a valuable employee.

Ten months later her buyer reports, "She is doing well and no longer seems worried or fearful."

One year and a half later her buyer reports, "She is good, and in her present capacity I couldn't do without her. There is no problem or complaint."

Her section manager says, "Miss —— is satisfactory, and a very efficient sales clerk."

The whole purpose of these case records is to reemphasize a point already partially understood by personnel people, but by no means made as much of in actual routine case-handling as it should be. That is, mere well-wishing, or mere sympathy, or routine welfare work—such as home

visiting and a week at camp—or mere transfer to another department, or simply further training by the divisional teacher, does not get usually at the bottom of the personal problems that underlie and disturb the emotional life of many workers. The individual case method of handling, based on an actual investigation of all the important causative factors, and a treatment or adjustment program suited to each particular case, constitutes the only fair and unprejudiced, as well as constructive procedure to follow.

The above three cases represent that group of problem workers requiring adjustment of their personality problems—the issue being a treatment one—the personal adjustment of the individual rather than a transfer to some other job. These are not job misfits, but personality difficulties, or maladjustments, and these represent the largest proportion of our problem cases.

This group of cases is frequently regarded by department heads as not only not productive, but of questionable value to the store. Many of these employees are bandied about from one department to another, through the process of transfer, in the hope that they will ultimately find the work in which they are most interested and for which they are best suited. Some make partial adjustments; others lose out altogether and are ultimately laid off.

The pity of it is that too often the individual constitutional factors underlying their work failure are overlooked, as far as actual adjustment and treatment are concerned, and the employee is not given a square deal from the point of view of good personnel practice.

These cases can, for practical purposes, often be cleared up right within their departments—*i.e.*, their main outstanding problems can be adjusted and they can be rendered assets rather than liabilities.

These particular cases are offered simply with a view

towards encouraging more careful and understanding personnel work.

Group B:

We come now to a new group of problems in which the job maladjustment or misplacement, rather than the personality disorder of the employee, stands out as the most important factor in the situation. To be sure, we will often have other issues to face, but the transfer to more suitable work, with proper training and adjustment on the job, is what is needed.

CASE 49—FEMALE, AGED 19 YEARS. CASHIER.

Problem: Referred by superintendent of department, on account of the great number of errors and shorts which she made, with the statement that if she did not improve soon, she would be laid off.

Physical Findings: Height, 5 feet 8 inches. Weight, 110 pounds. Considerably undernourished. Has had several attacks of tonsilitis and recently has had a growth on plantar surface of right foot, which has been removed. On recent examination in our hospital, she has been rated fair in physical condition except for underweight.

Mental Findings: She has an intelligence quotient of 88, rating her as dull average in intelligence. She was found to be slow in speed tests, fair in learning ability, poor in motor dexterity, and showed a tendency to error-making in accuracy tests. She has a pleasant and agreeable personality make-up, though a little peculiar and not very accessible to a personal interview, but does not concentrate well on the things at hand, showing a definite tendency

to mental reverie. She has a good general appearance, is rather attractive, neat, and well dressed. There is considerable emotional upset. She is rated poor on our cashiering test, and we do not believe she should be kept at this work. She has a good personality for sales, and if her mental conflicts can be successfully dealt with, she ought to make a good sales clerk.

Social Findings: Mother dead; father married second time. Home situation unhappy. Had to leave home and is boarding with a private family. Said that she was forced out of her own home. Has to support herself. Has had two years of high school. This is her first job.

Conclusions: This girl will never make a successful cashier. She is too slow in motor speed, her dexterity is poor and is not accurate by nature. She should succeed fairly well at sales. Transfer to sales is recommended.

Follow-up: Girl was transferred to house furnishings as sales clerk, where she did well, being rated as satisfactory by the head of the department, who expressed himself as pleased with the new clerk several months later. Inasmuch as she did not like it in the basement, she was transferred, after a period, to a department on the first floor, where she did fairly well. She has been under the supervision of the psychiatrist, and has improved considerably in her personality disorder. Her health is excellent, her weight has improved under a careful dietary régime, and her sales are fairly good. The average selling cost of her department is 4.35 per cent, while this employee's selling cost is 4.29 per cent, which means she is under the average cost of her department. Her interest in stock has been marked. She has proved reliable in stock work and gradually has taken on responsibility. Her contact with other girls has been good and she is now being tried out for head of stock—a promotion for which there is considerable com-

petition. The lesson to be learned in this case is one of suitable placement according to the ability and personality make-up of the employee.

CAES 37—FEMALE, AGED 19 YEARS. EMPLOYED AS CASHIER.

Problem: Later referred for examination by divisional teacher in Training Department, who said: "She seems to be suffering from some kind of nervous disorder. Her actions are especially queer when she is sitting near the head of the belt, and then she makes a lot of errors. Would suggest a psychiatric interview."

The superintendent of cashiering says: "She is slow at work, inaccurate, and I plan to lay her off."

Physical Findings: Vision in both eyes poor. Should wear glasses always when at work. Needs dental care. Is somewhat overweight, and has enlarged, diseased tonsils, which should be removed.

Mental Findings: She has an intelligence quotient of 100, giving her a rating of average intelligence. She shows poor speed in tests, her mental processes are slow, and her accuracy is only fair. Shows a tendency to error-making; learning is good, and knowledge of arithmetic is good. There is some tendency to daydreaming, and she has an anxious, somewhat nervous facial expression. She is emotional, cries easily, but is very pleasant and agreeable. There is a considerable tendency to reverie. Seems to be eager to make good, and is very responsive to suggestions. She, however, is not sufficiently alert and is not well enough integrated, speedy, and accurate enough to become an efficient cashier. She is at present suffering from mental conflict, and is in need of psychiatric treatment.

Social Findings: Denies any home problems. Lives with parents. Went one year to college. Has had three previous positions, two in selling (employed in each place between five and six months), and one as a cashier in ——.

Conclusions and Remarks: The girl is not only slow for cashiering, but she gets too frightened when handling money ever to succeed as a cashier. She would do as a marker. Recommend transfer instead of lay-off.

Follow-up: Transferred to the marking room. Training-worker's report: "Could do the work very well, but think she is not interested." Later she reports, "Talks too much, but is easy to get along with and pleasant." Again in another report: "Can be fast, but is sometimes slow. Is very courteous, but daydreams. Can do work well if she concentrates." Later the department reports: "She has been out for ten days or more with abscessed throat. Is still weak, but is very glad to get back to work. Her former nervousness may have been due to this trouble. Believe she will be all right. Is a good worker. Nice-appearing girl. Good type."

All this time, from the time that the transfer was put through, the girl was kept in close touch with by the psychiatrist. She had bad mental habits, as far as idling, daydreaming, and letting her mind wander off from the work at hand, but was so responsive and apparently eager to cooperate that we thought that it might be worth while to try her out, aiming at a more or less reeducational program. She showed considerable improvement.

Three months after transfer from cashiering to marking, the supervisor reported: "She is a good worker. There are no complaints. She is doing good work, and is pleasant and does everything she is asked to do."

Six months after her transfer the supervisor reports: "The girl is doing all right."

If we can get markers from the lay-off group of other departments, and they make good, it is a saving in employment.

CASE 84—FEMALE, AGED 22 YEARS. EMPLOYED 10-28-24, AS SALES CLERK.

Problem: Referred by buyer, who says: "Girl is depressed, getting thinner every day; goes to the hospital a great deal; is late frequently and not profitable as a sales clerk. Her selling cost is high, and I am wondering what should be done. She is a very nice person, has a lot of home problems, and it seems too bad to lay her off."

Physical Findings: Height, 5 feet 6¾ inches. Weight, 109 pounds. Complains of frequent colds and fatigue. Has been to the hospital sixteen times within the year, for consultation with physicians. Sent to the New York T. B. Clinic, to determine whether or not she had tuberculosis; report from clinic negative. Has sinus trouble. Loses a good deal of time from work on account of "poor physical condition." Nothing specifically discovered in physical examination, other than underweight, sinus condition, and tendency to frequent colds.

Mental Findings: Her intelligence quotient is 102, which gives her a classification of average normal intelligence. She is rated good in speed tests, good in accuracy tests, good in motor-dexterity tests, good in learning tests. She is a cooperative, responsive individual, who over-reacts to her own physical condition, and whose mind is unduly centered on her own bodily sensations. She "favors" herself too much and becomes over-anxious when not feeling

well. She is not aggressive and does not make effective contacts in her work with customers. There is a tendency toward pessimistic reverie, and she is not alive on her job.

Social Findings: Individual graduated from high school at the age of nineteen. This is her first position. She is single and lives at home with her mother and four sisters. Three of the girls support the family. She is engaged to be married, and the matter has been blocked, due to the financial condition of the family. The father is dead. Her present work is of such a nature as to make her an unsatisfactory employee.

Conclusions and Remarks: We have here an individual of average intelligence, in poor physical condition, with a mild personality disorder, in which a job maladjustment and certain home difficulties play a vital part. We believe that transfer to suitable clerical work—with proper follow-up work—should result in a satisfactory adjustment of this case.

Follow-up: Individual was transferred to a clerical position, in one of the offices of the store. She is off her feet all day. Her health is greatly improved, she has gained in weight, and at the date of present writing—eight months following our original study—she is reported as "doing splendidly," has improved physically, and they are much pleased with her. The girl herself likes her work very much, and her adjustment seems satisfactory.

Group C: We have here a group of people who present outstanding personnel problems to the store, and who, following upon a careful psychiatric examination, show physical and mental conditions of such a nature as to justify us in believing that an adjustment of their difficulties cannot be brought about satisfactorily, under store conditions.

CASE 600—FEMALE, AGED 26 YEARS. EMPLOYED 1-7-18, IN A NON-SALES DEPARTMENT.

Problem: Referred by the head of her department, who said: "She has had a great many absences during the last two years. She has been shifted a good many times within this office. We cannot seem to place her properly. She resents authority, is uncooperative, and has a feeling of being very important. She displays great slyness and cunning in covering up her errors. Has made many mistakes, but is very shrewd in not being caught. Of late, when she goes out into different departments in connection with her work, she wastes her time and we are sure to get back complaints. She was promoted, at one time, to be head of files in this office, with several girls under her, but she "rubbed it in" on the other girls to such an extent and was in general so difficult to get along with, that she could get no cooperation from them."

Physical Findings: A rather large, well-dressed, well-developed, fairly good-looking young woman, in apparently good physical condition. She has been a chronic user of the hospital, and during the last year has been under treatment for "run-down condition," following pneumonia. She was out for a period of three months, receiving Macy Mutual Aid. At the present time she is in good physical condition, and her physical examination is negative.

Mental Findings: Employee has a broad grin on her face. Is much elated—seems so full of energy she can hardly keep still. She refused to submit to psychological

tests, or bother with talking to anyone, except with the doctor—"could not take my time for trifling things."

There is a smug satisfaction on her face, and an expression of absolute well-being and complete self-confidence. Emotionally, she appears elated, with a marked euphoria evident. There was great psycho-motor activity characterized by a tendency to be in constant movement. Her thought processes were marked by a distinct flight of ideas—that is, she talked incessantly and changed from one subject to another so rapidly that she often halted in the midst of sentences which she never finished. She stuck to no goal idea, each new thought promptly displaced the others, and—like a child chasing butterflies—off she would go rattling a constant din of unrelated conversation.

This employee is suffering from an acute mental disease. At her work we find that her behavior to the job corresponds well with the mental symptoms she exhibited in the mental examination. She would not finish one task before she had started on another. There was a great pressure of activity, with very little of anything really accomplished. She would have an idea, and then run to the division head regarding it, and before she had gotten well started on this new line of activity she would all of a sudden be taken up with an entirely new thought and new line of interests.

Social Findings: Individual is single and lives at home with mother and brothers and sisters. There are no financial or domestic troubles that would affect her work or her general adjustment. She is a grammar-school graduate—never went to high school. Had only one previous position before coming to Macy's, which was doing clerical work.

Conclusions and Remarks: This employee is in need

of psychiatric care and treatment, under proper hospital régime. She has been a problem to the department for several years. Her salary is thirty-five dollars a week, and yet her department head says she does not compare in value with a seventeen-dollar-a-week girl. She is not likely to improve on her job, inasmuch as she has no insight whatever into her mental condition and resists absolutely all treatment suggestions. If retained she is likely to become a serious liability to the firm. We have been unable to get her support, or that of her family, in any treatment régime.

Follow-up: The above report was made to the department head, and her office retained her for a few weeks, attempting to adjust her, but with no success whatever. She was later laid off.

CASE 957—MALE, AGED 37 YEARS. EMPLOYED 1-24-27, AS A SALESMAN.

Problem: "This individual has been with the store only two months. There have been a good many absences. His selling cost is high, and although he has a good personal appearance, he is not a good salesman. He seems to be slow, and he is probably a health problem."

The above statement of the problem by the buyer in the department is offered, and the explanation of the condition present is found in the following examination:

Physical Findings: Height, 5 feet 7½ inches. Weight, 133 pounds. Blood pressure, 132/80. Vision—right eye normal, left eye very poor. Large central scotoma in left eye. Examination disclosed exudation into eyeball. Individual shows traces of albumin in urine. He is suffer-

ing from atrophic rhinitis, with a very offensive odor. A sample of blood was taken for a Wassermann test, which proved positive for syphilis.

Mental Findings: Intelligence quotient 80, giving him the rating of dull average in intelligence. He is rated poorly in arithmetic. Individual is a neat, rather nice-looking man, with an anxious, worried expression. Speaks in a jerky fashion, with a harsh and not pleasant voice. Not particularly aggressive and alert, and is apparently anxious over his work relations. Is inclined to over-react to disappointments, and at times is very moody. He compares, rather feelingly, his former position, buyer in another store for thirteen years, with that of sales clerk at the present time. He finds it difficult to adjust himself to the step down in his business status. There is some loss in memory.

Social Findings: He is single and lives with a married sister. Had a year and a half in college, and was for thirteen years connected with a small firm which has now gone out of business.

Conclusions and Remarks: We have here a new employee who has been with us only two months. Had the above examination been made before his employment, we do not feel that we could have recommended him as a good personnel risk. There is some evidence of mental deterioration, while he is distinctly a medical problem, of such a nature as to render him a liability to the store. We recommend his lay-off.

CASE 841—FEMALE, AGED 33 YEARS.

Problem: Referred by employment department with the following statement: "Individual has been doing poorly in her department. A transfer

slip has been made out and we would like advice in placing her."

Personal History: Employee was born in New York City. Her childhood was healthy. Never graduated from public school; only got as far as the seventh grade, when she left at the age of fourteen. Lives at home with her parents here in the city. Father a conductor on street car. One brother also works.

Has had no previous work experience. First position here at Macy's. She was employed 4-15-18, as post-office messenger. Remained in this position four years, when she was transferred, 1-5-22, to mail-opening clerk. She did this for three and one-half years, and was transferred in June, 1925, to —— in the same department. In September, 1925, she was transferred out of department to sales department ——. She was not satisfactory in that department, so a transfer slip was made out and sent to employment department. She was referred by the employment department for advice as to placement. She had been here in the store seven and one-half years.

Our investigation of her work brought out the following: The supervisor states that the girl had been doing clerical work in their department for several years. That about one year ago she was out ill for about two months. Previous to her illness, her work had been satisfactory, but since her return she was exceedingly nervous. Was not so quick as formerly in her work, and they decided to transfer her to some position of less pressure, and regarded sales as suitable for her.

The assistant buyer in sales department —— said: "The girl came in to our department in September of this year. She seems to be ill, and goes to the hospital on an average of twice a week. She seems inactive, indifferent, languid,

and daydreamy. She keeps her eyes either on the floor or on the ceiling most of the time. She is very careless with her stock, is never obliging in doing extra work. She appears very worried most of the time. Is nervous, restless, and fatigued. Her memory is poor and her books are poor. She is the poorest girl in the department. She is absent, late, and off the floor often."

She has gone to the hospital a good many times for constipation, laryngitis, enlarged tonsils, etc. She was out on M. M. A. seventy-five days during the latter part of 1924, and the early part of 1925, at a cost to the M. M. A. of $129.58.

This individual gives a history of illness about one year ago, which she designated as "nervous breakdown." We could get no clear history from her. At present she complains of headaches, dizziness, digestive disorders, fatigue, loss of appetite, etc. Her attitude is very poor toward the examination. She is quite uncooperative, seems far more interested in having something done for her and in securing her "rights" here in the store than getting well and meeting her obligations to her department. She demands a period of rest and absence, and is unwilling to discuss psychiatric treatment for the solution of her difficulties. Her intelligence quotient is 76, which classifies her as subnormal, and her personality disorder seems to be of such a nature as to cause the examiner to be dubious regarding any immediately successful outcome from treatment. She is resistive, suspicious, inaccessible, and presents a very marked paranoid state, with no insight.

Unfortunately for this girl, medical treatment for minor ills has served to focus her attention on herself to the extent that she not only exaggerates simple physical conditions, but demands treatment for her maladjustments,

at the physical level—unwilling to admit for an instant the mental factors involved. Nor is she eager for a termination of her illness, inasmuch as a certain definite satisfaction has been gained through the sympathy and attention she has received at home and from her physician.

The fact that we cannot recommend her imposition upon another department seriously complicates the issue, inasmuch as her own department is quite unwilling to continue her as a liability. If she had had sufficient insight into her own problems to adopt a cooperative attitude, something might have been done in the way of treatment. Her present mental condition is suggestive of the beginning of a more serious disorder, but neither patient nor family will admit the need for psychiatric treatment. We can only recommend the termination of her employment, with some financial consideration for her several years' connection with the store, it being our firm's policy that it has a definite interest in the welfare of all of its regular employees.

We reported to the employment department that we regarded her as poor employment material and could not recommend a transfer to any other position in the store, and that we would suggest a lay-off. She was returned to her department, and within two weeks was laid off by her department head.

CASE 1,051—FEMALE, AGED 59 YEARS. HAS BEEN WITH THE STORE SOME TWO YEARS.

Problem: Referred by supervisor, who says: "She is a good worker, but exceedingly irritable. Is a troublemaker; cannot get along with the other women; is very disagreeable to them. Keeps mostly to herself, but stirs up trouble between

employees. Says things that are not true and causes some of the people to threaten to resign."

Physical Findings: Height, 5 feet 4 inches. Weight, 120 pounds. No clinical history of any illness, and at present is in good physical condition. She has not consulted the hospital since she has been with the store.

Mental Findings: Intelligence quotient of 105, giving her a rating of average normal intelligence. She is rated good on speed tests, good in motor dexterity, good in accuracy. She should be a very capable worker. She appears very alert and aggressive, answers questions very promptly and brusquely. Is somewhat suspicious and resistive. Is loath to go into details, but declares that one special person in her department is an enemy, who has been doing all she could to persecute her ever since she has been with the store. The department head himself she believes to be connected with a group of conspirators who for several years have been writing her letters, trying to injure her reputation, and planning by hook and crook to take all of her money and her property, to secure her discharge from Macy's, and to make her life unbearable. These people were originally employed in running a correspondence school for girls wishing to take up a business course. They got her as a student, but did not deliver the courses promised. They, however, tried to make her pay for value that she never received. These people "have filled the newspapers full of falsehoods regarding her life; have caused her to move her room from one place to another; have employed detectives and other means to make her life a burden."

She is preparing an astounding revelation, through the courts, within a few months, of this gigantic conspiracy, and with glee and smug satisfaction she tells the inter-

viewer of the details of her plan. This woman is insane and is in need of hospital care and treatment.

Social Findings: No relatives are alive, according to her statements. She is single and lives in a rented room. She is unwilling to disclose much about her past.

Conclusions and Remarks: We have here a type of employee for whom nothing in the way of successful treatment on the job, we believe, can be accomplished. Her attitude was most resistive, and actually antagonistic to any efforts whatever at breaking up her fixed ideas. She has definite delusions of persecution; there is great restlessness; she has marked ideas of reference; and she is likely to become a menace to the store if she is not placed in contact with proper medical supervision. We recommend her lay-off and hospitalization.

The woman leaves her work, unhesitatingly, to show customers around through the store, taking the part of a floor director in giving out information. In this way she is becoming quite troublesome.

Group D:

The group here included represents employees who at our first examination we wished to keep under observation, to see if something could not be done, through treatment, to adjust them. But, in the long run, they proved to be hopeless cases, and had to be laid off as unprofitable material. These were cases in which we failed (from our point of view) to accomplish anything of definite value in making them assets to the store.

The following case represents well a type of employee who, but for the effective review method adopted by our Personnel Audit Committee in going over the selling cost of every sales clerk in the store, would have escaped attention and might well have drifted along through

various selling departments—a liability over many months, and even years.

CASE 1,062—FEMALE, AGED 31 YEARS. HAS BEEN AT MACY'S FOUR YEARS.

Problem: "Is a high-cost-of-selling case—that is, her sales are too low and her books are too poor to make her profitable to the department. She has not run good books for some time."

Physical Findings: Height, 5 feet 3 inches. Weight, 130 pounds. In fairly good general physical condition. Has suffered some from gastro-intestinal upsets recently, but at the present time gives no history of physical complaints.

Mental Findings: Intelligence quotient 101, giving her a classification of average normal intelligence. She is rated "good to fair" in accuracy, fair in arithmetic, and poor in speed.

She is a quiet, reserved, self-conscious individual, who seems stiff, inaccessible, and detached. She sits on the edge of her chair during the interview, and is not communicative. In her work she appears to be in a reverie. She is listless, slow in making replies to customers, careless in her dress and general appearance. She approaches a customer, asks no questions, stands silently and waits. Her replies are in monosyllables. Her movements are stereotyped; her voice is high-pitched and monotonous.

In the mental examination her responses were slow and she complained of difficulty in thinking. She herself had noticed a change during the last two or three years. Once she was engaged, and her *fiancé* died. Since then there has been a loss of interest in her environment—headaches, feelings of strangeness, and difficulty in thinking.

Her buyer had noticed a marked change in her personality, and her sales have been by no means so good as they used to be.

Recently she was overcome by gas in her apartment, and her friend who lived with her did not recover from the asphyxiation. It was never cleared up whether or not there was a suicide pact. The girl herself would not discuss the matter.

We have in this employee the symptom complex presented by a fairly well-known form of mental disease, and she is in need of psychiatric treatment.

Social Findings: Individual never got further than the eighth grammar grade. She did not graduate from public school. After this, she worked in a factory for two years, and then as a domestic for a short while, finally canvassing as a book agent. She was unable to make this go, so she came to Macy's as a sales clerk. She is single and claims that her people are dead. She lives here in the city with friends. Denies that there are any home problems.

Conclusions and Remarks: We have here an individual whose mental condition is such as to make it unlikely that psychiatric treatment will prove of any value in adjusting her to her job. She might be tried out at clerical work, inasmuch as she has been with us for four years, and some effort might be made to keep in close touch with her, seeing what can be accomplished.

Follow-up: This employee persistently refused a transfer to clerical work. She was retained, for a period of weeks, in her department, and efforts were made to improve her mental condition. But as time went on it became obvious that the procedure would be a costly one, as far as the store was concerned, and in the end probably no satisfactory results actually achieved. So it was recommended that she be laid off and placed in touch with clinical and social facilities in the community.

CASE 1,526—MALE, AGED 58 YEARS.

Problem: Referred because of "numerous complaints. Much worried about himself. Goes to the hospital frequently. Thinks he is going to die in one of his attacks."

Physical Findings: Height, 5 feet 3 inches. Weight, 118 pounds. Slightly undernourished. Scar from an old operation for gall stones. Teeth in very bad condition and urgently needing attention; hypospadias; eccentricity in gait, attributed to attacks of pain in the operative region. He sways in the Romberg position, has Argyl-Robinson pupils, and a fine, constant tremor of hands.

Mental Findings: This individual has normal intelligence and secures an intelligence quotient of 100. He works rapidly and fairly accurately. Makes errors on a simple problem of multiplication. There is no evidence of mental deterioration, though he gives the appearance of premature senility. This individual suffers from a host of psychoneurotic symptoms. He has weak spells, during which time his hands and feet become cold and clammy, his arms and legs give way, and he feels as though he cannot use them. There is, at these times, palpitation of the heart, difficulty in breathing, trembling, and he feels as though he is going to die. He suffers constantly from gastric distress, and has to keep his vest and the upper part of his trousers open to relieve the abdominal tension. At night he is unable to sleep more than an hour or two. Complains of great restlessness and feelings as though his heart will stop beating, and respiration seems to cease. He keeps a bottle of aromatic spirits of ammonia by his bed to give him relief. He suffers from

fears of "falling in a fit." He has fallen "right off my feet" once or twice, but has never lost consciousness. He fears that he will break down and be unable to support his family. His emotional tone is constantly depressed. These mental symptoms have been built up on a physical background. There is a history of two operations, also excessive sex life. Gives a history of having been a steady alcoholic drinker for a period of years—up until two years ago. He drinks an excessive amount of coffee, as well as smokes excessively. Our judgment was, from the beginning, that this employee offered a rather poor outlook from the standpoint of psychiatric treatment and personnel development. He obviously needed a thorough physical overhauling (the X-ray and the Wassermann proved negative). He also needed prolonged psychiatric treatment. A change of employment to outdoor life would doubtless be of value to him, while his retention in the store certainly could be no asset to Macy's. His production now is poor and there is every reason to feel that a deterioration (in this respect) will irrevocably ensue. The biggest problem is the fact that he has a wife and two little children. His wife has been insane and is now recovering.

We tried out a treatment line for the period of one month, and he claimed to have improved in his sleep, appetite, fatigue, and gastric distress. However, the more we saw of him, the more convinced we were of an incurable "illness complex" that thrived on medical attention, and he ran continually to the hospital for attention.

Having in mind the fundamental issue of his future value to the organization, we could not honestly continue a prolonged period of treatment in the case of an employee who, at the best, would never become anything but a potential liability to the store. So we joined the depart-

ment head in recommending lay-off. He was placed in touch with outside work and some social service aid.

CASE 1,550—MALE, AGED 55 YEARS.

A tall, well-dressed man of around sixty years, who gives his age as fifty-five years, makes a splendid first impression—voice low, well modulated, with marked Southern accent; splendid use of language, showing culture and refinement. Appears superior to the average; is extremely polite. Obviously a man of some attainments, and one who had seen better days until the fortunes of life forced him temporarily to descend (as he felt it) to a department store. This first impression was quickly verified by his impatience at having his "valuable time" consumed in our attempt to understand why he left our employ. Finally, he clarified the issue by stating: "Obviously, I do not care to remain here when I can make more money along my own special lines, in Wall Street, in ten minutes, than I could ever make here in one month." This would have been sufficient to terminate the interview, but for our habit of persistent inquiry into each individual's employment history, physical and mental health, home life, interests, habits, amusements, recreations, attitudes, personality make-up, etc., no matter whether he has become a great business success or not. In this case the psychiatric inquiry disclosed an outstanding mental disorder. He was suffering from delusions of persecutions, circumstantiality in thought processes, enfeeblement of judgment, emotional irritability, ideas of self-importance, and a group of symptoms characterizing a form of mental disease known as "paranoia."

He had only a very limited schooling, but read superficially to a great extent, being keenly interested in

increasing his vocabulary and extending his speaking acquaintance with various fields of human knowledge.

He was single and had spent his life as a clerk or floor-walker in the various department stores of New York City, remaining only a short time in each place, his separations being punctuated by periods in Wall Street, when he invested his meager savings, but to no avail as far as getting him any nearer the pot of gold at the end of the rainbow. Following each new venture on the Street, we find him ultimately returning to the department store to recuperate his shattered fortunes, but never able to remain longer than a few months or, at the most, a year or two, because of the "dishonesty, underhanded plotting, secret maneuvering and chicanery of personal enemies. People who imputed to me motives and conduct that were but the reflection of their own unethical lives."

Here in this store he has had the same difficulties that have followed him throughout his department-store experience. "Humility is not a dominating characteristic of mine, and I cannot accustom myself to the arrogance of inferiors. . . . You cannot have hundreds of people who are morally and ethically not right, in constant association with you, and yet be comfortable in coming in contact with such people. . . . There are things going on in this store about which the management knows nothing. They are very subtle. They are secret, but a shrewd man can see through such people. Of course, the management does not know a good man, because of the hordes of malignant people surrounding him. . . . These people know I am different from them. All the while there has been a secret conspiracy going on, intending to discredit me. . . . It was just such conduct as this that landed certain people in another store, here in the city, in the Tombs. . . . The great difficulty here is that you have too many servant

girls and stable boys in authority as executives. . . . Why, I can make more money in ten minutes than they can make here in one month. . . . The owners of this store should know of the underhanded methods that are going on."

This individual is totally lacking in any insight into his own personal difficulties and is altogether devoid of self-criticism. To succeed as a section manager, handicapped by such a mental condition, is out of the question.

Conclusions:

These cases are fairly representative of hundreds of referred problem employees, whose records are contained in our files and illustrate in the main the essential issues involved in handling such problems.

Taking 1,200 employees as a fairly representative group indicating the "run-of-the-mine" of the store at large, we have found that 19 per cent of the sales people, and 23 per cent of the non-sales force were problem individuals presenting conditions that caused their department heads to question the value of their services to the store.

I think one can safely say that approximately 20 per cent of our employees are "problem workers." These problem employees have been referred to us for many and varied reasons: "bad attitude," "upsets morale of department," "poor production," "nervousness," "chronic illness complex," "attendance record," "constant disciplinary problem," "stupid," "error-maker," "large shorts in cashiering," "indifferent," "resents authority," "day-dreamer," "wastes time," "damages goods," etc. Taking the last 500 cases that we have studied and worked with, their final status is as follows: 67 per cent of the 500 employees are still in the store, while 23 per cent have been laid off, partly through our own recommendations.

Eight per cent have resigned and 2 per cent were pensioned.

Of the active cases, 40 per cent have been adjusted and furnish no longer a problem to their departments; 44.7 per cent are still under treatment through our office.

If every other problem employee can be adjusted on his job while he is continuing at his work, then there is not only an enormous saving in employment, training, and placement of new people, but (and this is of much greater significance) the individual problem worker becomes of some satisfaction to himself as well as to others, an asset not only to business, but to the community at large; while industry and business assume an obligation long neglected for the prevention of work failures, which later result in social problems that become the burden of the general community.

There can be no denying the fact that it pays in time, money, and energy to have each and every one of these problem employees adequately studied before wasting so much energy on transfers and further training. Every department in any great organization contains its problem employees. And every department head has tried out various methods of dealing with such employees. Sometimes fatherly lectures, sometimes further training, sometimes transfers from one part of the institution to another, and finally—lay-off.

The old-time doctor used to treat his cases without much serious effort at examination and diagnosis. The empirical methods involved in relieving symptoms were the principles he followed. But modern medical science has supplanted this method with the fundamental principle of careful inquiry and diagnosis before treatment.

When we begin routinely to do this in personnel work, arriving first at a diagnosis of the human factors involved

in failure, a thorough study of the individual himself and his abilities and adaptabilities, before undertaking to apply treatment facilities, then—and not until then—shall we have entered into a period of prevention of "work failures."

CHAPTER III

Selecting Executives

We have thus far discussed those factors that make for failure at work; we have urged the clinical viewpoint in dealing with job misfits and cases of work maladjustment; we have outlined treatment and development possibilities in given cases and have called attention to the tremendous opportunities for human salvage as well as financial saving through the application of psychiatric and psychological methods to personnel work.

We have shown cases with early mild disturbances of a constitutional nature affecting their value as employees, and cases with serious conditions dominating their personality make-up, with the end in view of emphasizing the value of prevention; of showing the wisdom of catching and dealing early with those issues that later make for discharge and lay-off, and probably for serious social problems to the community. It is our purpose now to present another (and certainly to the business man more promising) aspect of psychiatric and psychological work, in industry and business, and that is to outline methods for the study and diagnosis of promotional material—the selection of executives and the proper placement through suitable transfer of promising younger employees.

The amount of wasted effort and blasted hope brought about through inadvisable promotions, inappropriate transfers, and unwise rejections cannot be overestimated.

The development here, we believe, of thoroughgoing, unprejudiced, and effective methods of investigation has

much to offer to personnel procedure. "Personal hunches" should be aided by a routine scientific technique that in time would formulate a definite discipline. The importance of this step can readily be appreciated if one bears in mind the cost of trying out incompetent individuals who have been placed in responsible positions largely because of their ability to sell their own personalities rather than because of their demonstration of qualities that make good executive material. Then there is the matter of the loss of otherwise competent employees who, because of their success in other fields, have been considered suited for executive positions and have failed. We have known of high-grade sales clerks who, because of superior sales technique, low selling cost, special sales ability, and a pleasing personality, have been considered suitable for executive jobs in merchandising, have been promoted, have made failures, and have resigned. We have known of speedy, accurate, and high-producing cashiers who have (*ipso facto*) been thought fitted for supervisory positions in the cashiering department, have been promoted, and have had to be demoted or laid off or have resigned because of their inability to handle intelligently and understandingly their relations with other employees. We have had repeated instances of such failures come to our attention in a great variety of executive positions, and have felt seriously the need of more systematic, objective, and fundamental principles of procedure than is offered by the customary trial-and-error method in conducting promotions. This whole matter of selecting executives is a highly specialized task. Qualities that make for success along these lines are sufficiently well defined to permit of generalizations in regard to their nature.

It was with the view of applying the psychiatric and psychological technique to this particular problem that

we began some time ago our study of the so-called promising material among the employees at R. H. Macy & Company. Out of this study has grown the present service now rendered in the examination of all promotional cases prior to official action by the general manager.

The fact that no one is promoted from the ranks to an executive job without a psychiatric examination may seem utter folly to certain practical men. Nevertheless, "the proof of the pudding is in the eating of it," and the actual statistical results of this procedure have proven that it pays in many ways. It is in answer to the many requests that we get for information as to the procedure followed that this chapter has been written. In it, we will endeavor to give briefly something of our technique, together with illustrative material.

Of first consideration is a detailed knowledge of the job itself. This involves an intimate job analysis, with a specific statement of the job specifications and an outline of those mental and physical factors that are involved in its performance. With all of this completed, it is then necessary to study those employees performing the job in order to determine the type of people who succeed and fail at such work. Out of this survey comes finally a statement of the personnel qualifications for candidates. Now we are prepared to study the applicant and check him up against the personnel requirements and criteria we have established, in order that we may determine his suitability for the particular position in question.

It is well at the outset to emphasize that after criteria for the job and personnel have been established, some acceptable methods for the study of candidates are essential. These should aim to be sufficiently comprehensive and thoroughgoing to select people who are not only good personnel risks in general, but who have the specialized abilities and personality characteristics that qualify them

particularly for the job in question. Right here something might well be said concerning the tendency to associate with the scientific aspects of this subject the matter of developing psychological tests. In many good books on the market, 90 per cent of the discussion on selecting employees has to do with presenting the results of experiments seeking to find a test or set of tests that will pick individuals for certain jobs—a wholly impossible task. The broader, well-rounded, clinical aspects of the subject, the study of the whole individual, being entirely ignored in favor of pages and pages of procedures in standardizing tests and establishing correlations which too often in the long run wind up, leaving the reader where he started.

Our task in connection with the development of scientific methods has to do with the study of people, and not simply with securing scores on psychological tests and trait estimates on rating scales. To be sure, tests should be used to determine certain mental abilities in question, and in this narrow relation they are particularly valuable. (The psychological batteries we ourselves have found most useful are discussed in another chapter.)

No method is adequate that falls short of a fairly comprehensive survey of all important physical, mental, and social issues in a given case.

In order to illustrate the method followed, we might present our procedure in two types of jobs: head of stock, which leads ultimately to an important position in the merchandising field; and section manager, which may lead to an important management position. The choice of the right person in either position is of considerable importance in order that time and energy taken in developing the individual be not wasted on unpromotable material. The following outline itemizes the duties of head-of-stock job:

Summary of Duties of Head of Stock:

(covering knowledge of *department*, of *merchandise*, and of *personnel*).

Knowledge of Department

I. General layout
   A. Kinds of merchandise
   B. Exact location

Knowledge of Merchandise

I. Information about stock
   A. Color—size—style—price range
   B. Material of which merchandise is made; its price, use, durability, workmanship, popularity, etc.

II. Survey of Merchandise
   A. Details of stock work
      1. Covers removed in A.M.—dusting, etc.
      2. All merchandise in salable condition
      3. Tend to repair
      4. Damaged—returned merchandise requiring mark-down, set aside to hold
      5. See that sufficient quantity of merchandise is on floor. Replenish from Reserve when necessary. Notify department manager of shortage, particularly of staples.
   B. Details of Display
      1. Necessity for featuring certain items
      2. Color scheme—arrangements, etc.

III. New Merchandise
   A. Ordering; duty occasionally falls to head of stock (although assistant regularly tends to it), particularly in case of reorders.

B. Marking (see this is satisfactorily done)
   1. Routine of getting merchandise from receiving department to selling floor
      (a) Invoice
      (b) Retailing—marking
      (c) Disposition

C. Advertised Merchandise
   1. Routine of preparing for sale
      (a) Signs
      (b) Advertising material
      (c) Ordering merchandise from receiving department
      (d) Placement in department

D. Street Floor Table Merchandise
   1. Routine for table sales
      (a) Arrange for table
      (b) Placement on floor—signs, merchandise, etc.

E. Special Orders
   1. Details
      (a) "Promised dates"—price, etc.
      (b) Care of special-order book

F. Mark-downs
   1. Regular
      (a) Head of stock brings to immediate attention of department manager damaged, soiled, slow-moving stock
      (b) Details of mark-down; signs, tickets, etc.
   2. Competitive
      (a) Details of getting merchandise on sale—counting, mark-down, etc.

G. Miscellaneous
   1. Repairs—head of stock usually consulted by clerk and section manager
   2. Transfer of merchandise for display—advertising, etc. Head of stock should keep track of merchandise, check back on returns, quantity, quality, etc.
   3. Prior stock
   4. Inventory

Knowledge of Personnel

I. Contacts with department manager and assistants
   A. Quick, accurate, thoughtful cooperation

II. Contacts with Sales Clerks
   A. Familiarity with each one's ability and performance
   B. Assign stock work
      1. Study amount to be done and the best time to do it
      2. Supervise sales clerks' performance
      3. Sell with sales clerks when necessary
   C. Instruct new sales clerks

III. Contacts with Receiving Department
   A. Manager, assistant, markers, stockmen

IV. Contacts with Stock Girls
   A. Head of stock responsible for keeping them profitably employed

An analysis of the above job specifications in terms of the mental and physical factors involved in their performance and a psychiatric study of the personnel—the individuals actually doing the work—brings out the following

conclusions as to the type of people best suited for this job, or rather the personnel qualifications that should be met.

Personnel Qualifications for Head of Stock

1. *Age*—over twenty years
2. *Schooling*—high-school graduate, college preferred, though in exceptional cases, where all other requirements are well fulfilled, experience may compensate for an inadequate academic training.
3. *Work History*—the work history is more likely to throw light upon the individual's personality make-up than upon any specialized aptitude for the head-of-stock job. The regularity of his employment, the definiteness of his occupational goal, may, in some cases, be significant.
4. *Intelligence*—preferably above 109 I. Q., although some individuals of average intelligence, with a particularly well-integrated personality make-up and an unusual drive in the way of interest in their job, make excellent heads of stock and are later promoted.
5. *Accuracy*—applicant should receive a rating of "good" in accuracy tests.
6. *Speed*—he should also have a rating of "good" in performance speed tests.
7. *Personality*
   A. *Contact with the sales force*—applicant should be cooperative, interested, and friendly in his daily work with the other employees in his department. He should show an inclination to help others with their sales and arouse interest in the merchandise. His work should have indicated that he is reliable in giving merchandise

information. And his personality and manner should command the respect of the other employees.

B. *Contact with superiors*—he should be cooperative with those in authority over him. He should show good judgment and a sense of values in carrying out their orders. He should give evidence of loyalty and dependability in his relations with his buyer or assistant buyer. He should also manifest poise and dignity and show initiative and independent thinking.

C. *Contact with merchandise and stock*—his reliability and dependability are shown through the interest he manifests in the merchandise and stock. He should show evidence that he is a keen and accurate observer and that he knows thoroughly the reserve. He should observe on the floor what is selling well and what is not. In handling his stock he should be neat and orderly, show good judgment, and have a sense of style.

D. *Other personality attributes*—the applicant's personality should be well integrated and he should show a good insight into his personal problems and his work relationships. There should be a purposive use of energy. He should be active, alert, reasonably aggressive, ambitious, responsive, but not over-suggestible. He should be industrious and convincing. His interests should be both in merchandise and in people. He should dress neatly and have a good personal appearance. His contacts should be effective. A keen sense of values in respect to goods and materials and a shrewdness in

dealing with people is essential for a good merchandise man.

8. *Physical condition*—individual should be in good general physical condition, free from any outstanding defects or disorders. Inasmuch as the demands of the job require a considerable output of energy and continued work, often under pressure. Underweight, low blood pressure, and conditions associated with fatigue show themselves readily in poor production.

The following cases are simply used to illustrate a general method and do not at all represent particularly well-studied material; they are very brief extracts from the case records and will serve as a basis for discussion. Those wishing to go more carefully into the methods of examination and the medical, psychological, psychiatric, and social studies, can get some idea of the general procedure by reading the forms appended to the latter part of the book. A short, practical guide to the methods of studying the personality will be found in the chapter devoted to the psychiatric guide for employment.

Every candidate should receive a careful medical and psychological examination, a personality study, a social-history inquiry, a job behavior investigation; and all of this information should be integrated, analyzed, and carefully summarized into one well-rounded report or picture of the case.

CASE 694—MALE, AGED 28 YEARS.

Problem: Applicant for Head of Stock.

Physical Findings: Height, 5 feet 8½ inches. Weight, 177 pounds. A fairly well-developed and well-nourished,

slightly stooped-shouldered young man. Vision poor, without glasses, but is corrected with them. Blood pressure 130/78. General physical examination negative, and his medical health history is free from any serious disease or defect. At the present time he is in good health.

Mental Findings: *Psychological Study.* Intelligence quotient 116, giving him a classification of superior intelligence. He shows a good grasp of instructions, and is rated excellent in his arithmetic tests. In association tests he shows good judgment and he completed his other tests with considerable imagination and planning ability.

Personality Study. With a good sales appearance, he is neat and well dressed, and has a pleasant and agreeable personality, makes an easy first contact and gives the impression of having a well-balanced and effective mental make-up. He is alert and aggressive, but not in an objectionable way; he has a quiet and courteous manner. He shows a good attitude toward the examination and a very definite interest in its outcome. He has a well-integrated personality, a good sense of reality, and keen insight; he appeared to us outstanding in his cooperation. He manifests poise and dignity and is a good observer.

From our study we believe this young man has initiative, a good sense of values, a keen, discriminating mind, and adaptable personality, and is promising for promotional purposes in the store. We feel that he will deal with sales people with imagination and judgment.

Social Findings: He is single, lives alone in New York City. There are no financial or home problems. He was graduated from a university; he received a B.A. degree, as well as a degree in law from the same university. He practiced law for a period of three years, and decided that there was a greater opportunity for him in the merchandising field, so he came to New York University for instruction in retailing, and has been doing his practical

work at one of the larger mercantile establishments here in the city. He would like to get into Macy's for the general training he would receive.

Conclusions and Remarks: Our study of this applicant would lead us to recommend his employment. We believe he is good promotional material.

(This individual was employed and made a successful and effective head of stock. Later he was promoted to a higher position—assistant buyer.)

CASE 1,002—FEMALE, AGED 23 YEARS.

Problem: Referred for study, "Promotion to head of stock."

Physical Findings: Height, 5 feet 5 inches. Weight, 138 pounds. Blood pressure, 102/82 mm. low. Vision normal in both eyes. She seems to be in fairly good physical condition, but has chronic constipation and takes medicine for it regularly. Medical card shows consultations for this condition, dysmenorrhœa, cold, etc. Before coming to work here she had a nervous breakdown (two years ago) and was out of work for six months.

Mental Findings: *Psychological Study.* Miss —— secured an I. Q. of 92, which gives her a classification of average intelligence. On the simple completion test her judgment was fair; on the more complex and difficult test her judgment was fair, as most of her associations were somewhat superficial. In arithmetic she was rated good, having solved correctly 18 out of 22 problems; speed, fair plus; accuracy, good; legibility, good. Miss —— grasped the instructions readily and worked very intently on the tests. She was very cooperative. On the difficult judgment test she was unusually slow and seemed to have difficulty in coming to conclusive decisions. This indi-

vidual of average intelligence showed fair judgment and her ability on the tests as a whole was good to fair.

Personality Study. She was neatly and appropriately dressed and her appearance was very satisfactory. Her manner indicated an attempt to be pleasant, frank, and interested, but she was distinctly ill at ease and upset over the interview. In spite of her evident desire to cooperate fully, she was so nervous that she could not express herself well and did not make as good an impression as she would otherwise have made. In make-up she is a mild introvert and she has personality difficulties which interfere with her proper adaptation to life situations. There are a number of active conflicts which are making her unhappy and discontented. She has a great feeling of dependency on her family and a number of her conflicts seem to be dependent upon the great attachment that she has for them; when speaking of her father and mother her eyes fill with tears and she is quite upset. Her drive does not seem to be unusually strong, she is only mildly aggressive and her forcefulness is rather spasmodic. Her efforts to advance herself have not been well integrated or purposive. Her contacts are fairly good—she is likable, convincing, and conscientious. Although she has been in the store for about one and one-half years, she says that she has never applied before for advancement. She does not like to "push" herself, but would rather have people come to her. She felt that one ought to have considerable experience in the store before applying. She seems to have no particular preferences of work beyond a place where advancment would be possible. She is not particularly keen and shrewd, and there seems to have been no great amount of imagination and good common sense displayed in dealing with her personal problems.

Social Findings: She is single and lives at home. Her father is a ——. She is the oldest child in the family;

has six sisters. Her father failed in business some time ago and there are financial difficulties, apparently. She cries when she mentions these matters.

She graduated from grammar school at the age of sixteen, after having been left back a couple of times. She said she didn't like school. She later graduated from a secretarial school.

She first worked in a factory for two months while in school (during her vacation), then worked mailing circulars for a while during her vacations later. Her first work after getting out of school was as a stenographer in an office, where she stayed six months. She found she could make more money modeling dresses, so she gave up this work. She stayed for two seasons in her first place and then went to another house for a year or so. After that she did general work in another house for two years, but was obliged to leave there on account of a nervous breakdown. Then she came here, after recovering from this condition.

Job Behavior: She has been quite satisfactory as a sales clerk in the —— department. Her manner is courteous and pleasant, and she has never been known to be at all abrupt with "lookers." She appears to recognize that customers who do not buy one day may return later. She does not push a sale if the merchandise is not quite suitable and is frank in her representation of things. In displaying merchandise she talks intelligently. She rarely has to be called to wait on customers and approaches quickly when she is called. Her stock work is carefully done without supervision. It is necessary to tell her things only once. The section manager finds little occasion to speak to her; her transactions are never confused or inaccurate and she does not "pester" one with trivialities. When she first went into the department her sales

record was outstanding—she ranked among the first three or four. During the last season her record has fallen down —she ranks nearer the middle of the group. "This would seem to indicate a tendency to 'plod' along, without the same 'drive' as previously, but no apparent lack of interest has been observed." While in the —— department at no time did she go directly to her buyer in an effort to gain advancement in her own department or elsewhere.

Conclusions and Remarks: Miss —— has average intelligence, with personality difficulties needing psychiatric treatment. Her sensitive and rather poorly adjusted personality is not very well suited for executive work. At the present time we do not feel that she brings very much to the job; her general intelligence is not very high and her cultural background is not up to standard. She could probably make a fairly successful head of stock, yet we do not feel that she is buyer material and do not recommend her promotion. Her insight is not particularly good, so that psychiatric treatment is not as promising as we could hope. Nevertheless, she should be placed under the close follow-up of this office. She should develop into a very good sales clerk.

CASE 1,498—FEMALE, AGED 30 YEARS.

Problem: Referred by general manager. Question of promotion to head of stock.

Physical Findings: Height, 5 feet 4 inches. Weight, 115½ pounds. Blood pressure, 108/64 mm. Vision is fair and her hearing seems O. K. She occasionally wears glasses. She is in only fair physical condition at the present time, is undernourished and anæmic, and complains much from fatigue and pains in her legs and lower part of

the back, due to being on her feet all day. She has fallen arches and needs attention for this condition.

Mental Findings: I. Q. 101, giving her a classification of average normal intelligence. She is rated fair in her arithmetic test.

An undernourished, somewhat pale young woman of not very robust constitution, who appears alert, business-like, convincing, and polite. She has an active, ambitious, pleasant, energetic personality, makes fairly good contacts, and seems to have sufficient initiative and drive to succeed in the proposed position. Her past experience has not accustomed her to hard work and she gives the impression of slightly over-reacting to the difficulties involved in the present job. She finds it hard, the department hot and close, and the day fatiguing. She has a slightly neurotic personality make-up, is rather particular about her food, and manifests some doubts about her ability to physically stand the strain of the work. However, there is a genuine interest in merchandising and she gets a joy and pleasure out of that side of the work. She reads whatever she can get her hands on in connection with her job interests, and there seems to be a clearly defined purpose to make good if promoted.

While she makes a fairly good individual contact, she is not the type that could do good in personnel work, for she has little sympathy or understanding of people and she is not actively congenial with the personnel.

Social Findings: This individual is single. At present she is living alone here in the city. There are no domestic or financial problems. Her educational background was acquired through reading, private tutoring, etc. She has never attended a public or private school of any description. Her work experience has been limited. She comes of a wealthy family and it was only recently that it was necessary for her to work. She first managed an estab-

lishment for a private family. Her interest in merchandising developed with one year's selling experience in the Untrimmed Millinery Department of —— She left for a better position in the Women's Dress Department at ——, and she worked there six months and, because there were no immediate prospects for advancement, resigned and came here.

Job Behavior: She has done satisfactory work in the short period of time she has been employed here. She has taken a genuine interest in the merchandise and within a short period of time has adapted herself well to the department. She is a very good sales person—resourceful, convincing. Her culture and breeding impress customers very favorably. There was some difficulty in making contacts with "old" clerks—they seemed to resent her presence and took every opportunity to make her feel that she was not one of them. She, however, has adjusted herself very satisfactorily to the situation, and "now she has the respect of everyone in the department." She uses judgment in planning her work, and doesn't get "rattled" or confused. She accepts criticism in an impersonal way and realizes the importance of a cooperative, open-minded attitude.

Conclusions and Remarks: This individual has the ability to do the work as head of stock. Her physical condition, however, is not robust. She is not accustomed to working under pressure, while her personality presents certain traits and tendencies that will have to be adjusted in order to work out successfully in handling the personnel in this department. We feel that she is fairly promising, but in view of the facts presented above we cannot recommend her unreservedly. If promoted, she is in need of close medical supervision and psychiatric contact and follow-up.

CASE 15.— FEMALE, AGED 19 YEARS.

Problem: Referred for promotion to head of stock.

Physical Findings: Height, 5 feet 4½ inches. Weight, 116 pounds. Blood pressure, 110/66. Vision normal. Hearing normal. She suffers some from constipation, but other than this her clinical history is practically negative. She is mildly underweight. In personal appearance she is only fair. She is not scrupulously clean; her hair straggles into her eyes. She gives the appearance of carelessness and lack of concern about her bodily appearance.

Mental Findings: This employee secures an I. Q. of 113, which gives her a rating of superior intelligence. She shows a good grasp of instructions, and is rated good in arithmetic.

She was distinctly ill at ease during the interview, and at a loss for words. Her facial expression was one of disinterestedness, and her attitude was not fully cooperative. She never volunteered information throughout the examination, though she answered questions readily. Her personality is of the nature of an introvert, she makes poor contacts, and does not give the impression of being effective. She over-reacts to situations, takes things seriously, and worries a great deal. At the present time she is very much disgruntled and dissatisfied because she has not been promoted. She has an overweening ambition and manifests an urge to get ahead. She has not adjusted herself to the delays and disappointments in securing advancement. She shows an egocentric personality make-up. Does not get along well with people, but has a native shrewdness and sense of values in dealing with materials and stock.

Social Findings and Job Behavior: She is single, lives with her people in New York City, and there are no domestic or financial problems.

Her education consisted of two and one-half years of high school—she left at the age of sixteen—one year of business school, and extension courses in the sciences at college. She seems eager to educate herself, and her interest in academic work is apparently genuine.

This is her first work experience. Her mother and father have a millinery shop, and it was their business that first aroused her interest in merchandising. In general her work performance seems to be very satisfactory. She, however, has not an air of refinement and she was not immediately accepted by the other clerks in a friendly fashion. A shopping report described her as "a superior sales person," but remarked her personal appearance unfavorable. Her sales are good. She attends to business, but does not seem to be able to command the respect, interest, or confidence of the other clerks.

Conclusions and Remarks: This employee has superior intelligence and is reasonably industrious. She is in fairly good physical health, and is an efficient sales clerk. She is ambitious to advance and is capable of doing merchandising work. However, her personality is not adaptable, she makes poor contacts with others, and does not show good judgment and imagination in her personal relations with the clerks, and we do not feel that she will make the effective and satisfactory contacts required for executive work. We do not recommend her promotion at the present time, but will place her under psychiatric treatment and follow-up, to see what can be accomplished in improving her personality make-up.

Discussion: In the foregoing cases we have merely tried to show that in estimating the suitability of a candidate for a certain executive job, her general health and

physical fitness, her intelligence, her special abilities and disabilities, her personality make-up, and social background in terms of work career, education, and home conditions and finally, her actual behavior on her present job are all important issues to consider.

The question arises as to what amount of success has this method of selection to offer. It was with this in mind that we made a careful follow-up on the first one hundred cases of heads of stock referred for study, in order to see what degree of success had been achieved by the foregoing methods in predicting the future value of these employees as executives. We waited for a long enough time to elapse after our study (six to twelve months) in order that we might be fairly sure of our judgments. All of these one hundred cases had previously been selected by the general manager's office, from a much larger group of candidates, as being what they considered the most promising material available and all suited for promotion to the head-of-stock job. These one hundred individuals may be divided into three groups as a result of the psychiatric examination: (1) those whom we recommended without any reservation; (2) those whom we recommended with reservations; (3) those whom we did not recommend. In the first group there were seventy-five cases. They all received our unreserved recommendation for promotion. All of these were officially promoted, and 92 per cent turned out, in the long run, as high-grade satisfactory executive material.

In the second group (those whom we recommended *with reservations*) there were fifteen cases. All of these individuals possessed handicapping factors in their personality make-up that might or might not influence unfavorably their work success. These traits were varied and differed according to the case. Nevertheless, they all possessed sufficient ability to perform the job; they were all

fairly good material, but did not measure up to the standards of the first group. Twelve of these cases were promoted and three were turned down. Of the twelve who received promotions, 50 per cent turned out successfully.

There were ten employees in the third group. None of these did we recommend for promotion, because of their unsuitability for the job. One was promoted and he turned out poorly, his main difficulties being in his relation with the other clerks, his lack of ability to command respect and be taken seriously, his ineffective contacts, and the general unfitness of his personality for the job of supervising others (a faulty compensation for an inferiority complex produced rather serious personality disorders).

It is interesting, in the first place, that we did not find that 100 per cent of the cases, carefully chosen through the usual channels, were good promotional material, that we rejected 10 per cent, and that we found an additional 15 per cent to be questionable material because of certain personality factors that might affect unfavorably their work ability. Finally, the fact that 92 per cent of those we recommended without reservations, and only 50 per cent of those we recommended with reservations, made good at this work, is of itself sufficient comment on the value of the procedure in choosing promotional material in business and industry.

There is no infallible method (nor will there ever be) that will always pick just the right man for the job. Our purpose here has been to outline a procedure that, if carefully followed, will in the long run give the best chance for a wise selection. Tests and paper methods will never do more than determine certain mental processes and certain personality types. In all instances, the final diagnosis and decision must come down to individual case studies and their evaluation. Picking out introverts or extroverts may or may not be of value in any given case; determining

intellectual levels, getting temperamental types, etc., may be of significance only as it relates to the total picture of the individual. Successes and failures among executives may be found in any of the various groupings and classifications common to psychological and psychiatric theory.

Each candidate must be rigidly sized up against all the various items in the personnel qualifications of the particular job in question.

SECTION MANAGERS

We have here a junior executive job leading to an entirely different field of mercantile activity from the merchandising job that we have previously discussed. Problems of management, rules and regulations of the store system, service to customers, disciplinary measures with sales clerks, customers' complaints, etc., require for the performance of this personnel job a type of personality make-up essentially different from that of a merchandising man. The primary issue here is vital interest and special talent in dealing with people, while the dominant need of the merchandising man is a shrewd sense of values about goods, that so-called hard-headed bargaining sense of reality where dollars and cents are concerned. One is primarily centered on people and the other on things—costs, prices, values, etc. In both fields there are certain duties involving an overlapping.

The following outline will give some general idea of the nature of the section manager's job.

Job Specifications for Section Managers:

I. Service to Customers
   A. General information
      1. Location of departments and merchandise
      2. Public service, shopping bureau, etc.

B. Service controlled by house system
   1. Checks and money orders
   2. Repairs
   3. Special delivery
   4. Parcels inclosed, etc.
   5. Allowances
   6. Bills, or invoices to customer, etc.

C. Depositors' accounts
   1. Information regarding D. A.
   2. Signing taken purchases under ten dollars.

D. Exchanges, refunds, orderbacks

E. Complaints and adjustments
   1. Personal
   2. Through bureau of adjustment

II. Relations with Sales Clerks and Merchandise Checkers

A. Discipline
   1. Weekly meetings
   2. General discipline regarding dress, time, etc.
   3. Discharge, resignation, transfer
   4. Error records
   5. Demerit reports

B. Assistance
   1. Passes for unusual leaving of department
   2. Allowances on merchandise
   3. Various credits, etc.

III. Section Manager's Responsibilities

A. To his department
   1. Opening and closing
   2. Reports
   3. Supplies

4. Mail
5. Department inspection
6. Requisition for contingents or new employees
7. Mail orders

B. To Merchandise in Department

1. Errors in marking
2. Return to stock merchandise
3. Maintenance
4. Inventory

After analyzing carefully the mental and physical factors concerned in the performance of the job and examining the best and worst section managers, the following personnel qualifications were decided upon:

Personnel Qualifications for Section Managers:

Age—22 to 45 years
Sex—Male or female
Schooling—H. S. graduate (experience and personality may compensate to some extent for less than this educational requirement)

Work Experience

Retail—desirable
Supervisory—desirable

Physical Conditions

Good general health
No physical handicaps
Good sight and hearing
Freedom from flat foot

Personality

General Characteristics

Alert
Stable
Well integrated
Good attitude

Special Characteristics

Interested in personnel
Likes contact with people
Ability to make effec-

SPECIAL ABILITIES	tive contacts
Judgment—very good	Ambivert or extrovert
Speed—fair to good	Convincing
Accuracy—fair to good	Poised and self-confident
Legibility—fair to good	Active
INTELLIGENCE	Observant
I. Q. 90 or over, preferably over 100	Initiative
Observation test—good	Aggressive

Two typical cases will serve to illustrate the sort of individuals that succeed at this job. The technique of examination, of course, is the same here as in the other jobs.

Distinguishing features will be noticed that characterize the personalities of this group as compared with the head-of-stock group:

CASE 871—FEMALE, AGED 39 YEARS.

Problem: Study of section managers.

Physical Findings: Height, 5 feet 6¼ inches. Weight, 150 pounds. Blood pressure, 126/88 mm., normal. Vision slightly defective in both eyes. She is in good physical condition at the present time. She had an attack of sciatica three months ago, but this has now cleared up. In 1926 she was operated upon for —— and was out six weeks. This condition has entirely cleared up now. Also had absences due to colds, rheumatism, hemorrhoids, and bronchitis in previous years.

Mental Findings: *Psychological Study.* Mrs. —— secured an I. Q. of 90, which gives her the classification of average intelligence. She did not show a high degree of imagination and judgment in complex association tests; poor in arithmetic, having solved correctly 11 out of 22 problems; poor in accuracy; fair to good in speed; fair to poor in legibility. Mrs. —— showed a good grasp of the instructions and worked conscientiously throughout the tests.

Personality Study. She was neatly and smartly dressed and her appearance was very good; entirely suitable to her work. Her manner was pleasant, alert, and very convincing. She was responsive, accessible, and frank. She expressed herself rather well and her sincerity and enthusiasm were noteworthy. She was sure of herself, aggressive, forceful, and self-reliant. She does not show much originality, while her ability to think rationally and to plan well are about average. She would rate high in cooperation, sociability, and the assumption of responsibility. She is very sincere, conscientious, and anxious to succeed in her work. In make-up she is an extrovert and no personality difficulties were noted. She is an emotional type of person and generally has a cheerful mood. Her sense of reality is satisfactory and her insight into her emotional life and her personality seem to be good. Her drive is good and she is very energetic. Her ambition seems to be centered in her present work and does not reach beyond the confines of her immediate surroundings as a section manager. We would not consider her particularly imaginative or original, but quite persistent, thorough, and industrious. Her contacts are very effective. She is likable, inspires confidence, and is definitely convincing. Her interest in, and the amount of attention she devotes to, people is out of proportion to that she manifests toward stock and prices and values of materials, etc.

She is enthusiastic about her work and seems to find it entirely satisfying. The authority and superiority of her position contribute to her satisfaction in it. The most interesting part of the job, to her, is the contact with customers. She relates at length incidents of customers returning to her because they were previously satisfied with the attention given them. She feels "there is something worth while in being a section manager; it is an important pivot in service to people. . . . The hardest part is managing the department so that others do what you want them to. . . . This is best accomplished by being nice rather than impatient with them." She comes in at 8:30, gets her orderbacks done before the department opens, and is then ready at 9:30 to begin the supervision and handling of customers. She seems to have plenty of time for everything. The greatest incentive to having the department running well is the happiness arrived at from having things done right. She is rather naïve and lacking in shrewdness; she is not keen and sharp in her dealings with her clerks, but on the whole is effective and dependable.

Social Findings: She is married. Her husband and she live alone—have no children. She apparently has no domestic or financial problems.

She had the equivalent of about the second year of high school and has taken no other school work except a course in textiles.

Her first work was as head examiner in a factory where she worked for one and a half years, and left when the place closed up at the end of the season. Then she worked as head examiner for another house for one season—three or four months—coming to Macy's when they closed up.

Job Behavior: Mrs. —— is section manager in the —— department, which is classified as a Group IV section-manager job (one of the better class jobs). It is a very

busy department, but she handles it excellently. She is very active and energetic and knows her job "about as well as anyone could." Her manner with customers is enthusiastic and good-natured. She prides herself on service. She seems to be always cheerful and greets them with a smile. She goes out of her way to see that customers are satisfied. If no clerks are available and she has the time, she will make an exchange herself and will call the manufacturers for information, or do anything that will facilitate the transaction. On the whole, she shows a fine display of judgment in pleasing customers. Her contacts with sales people are good, although she is a disciplinarian and goes after them in "good strong language" if necessary. They are afraid of her, but like her and cooperate with her. Her manner can be a little loud and rough with them. She is very cooperative with her superiors and executives of the department, does her best to keep down refunds and returns, and keeps herself well informed on the merchandise in the department. Her contacts in general are very good and superior executives are enthusiastic about her.

Conclusions and Remarks: Mrs. —— has average intelligence and a personality that is well suited to her work. The outstanding factors in her success seem to be her complete satisfaction with the job and the peculiar fitness of her personality make-up for this sort of work. She has a definite interest in the clerks and understands their problems. She likes the routine of her duties and gets great pleasure out of her relations with customers, and takes a personal interest in the solution of each complaint.

The following case summary is that of a young man who, when studied by us, was on the training squad and at the time was being tried out as a temporary head of stock. His performance was *so unsuccessful as to have caused the*

buyer to ask for his removal. There was a question of whether he could be placed at all in the store.

He did not seem to learn the duties of his position, was not well acquainted with the merchandise sold or with that in reserve stock. He made rather frequent errors in judgment as to goods and values, and did not remember job matters that the average head of stock would consider relatively simple and routine. He kept himself unduly busy, bustling about in a nervous hurry, and appearing to be fully occupied, but, according to his buyer, accomplishing very little.

After our study we recommended that he be transferred to a section-manager job, as we did not feel that he had merchandising ability. Since then and within four months he did so well as section manager that he was promoted to be supervisor of a group of section managers, and very lately he has been promoted to the position of Assistant Floor Superintendent.

CASE 1,326—MALE, AGED 29 YEARS.

Problem: Referred himself for study—"not succeeding at present job and wonders what the real difficulties are."

Physical Findings: Height, 5 feet 11½ inches. Weight, 175 pounds. Blood pressure, 118/72 mm., normal. Vision, normal in both eyes. Individual's medical history is negative except that he suffered considerably this last summer from a sty and made a good many trips to the hospital during June, July, and August for this condition. He is now in good physical shape.

Mental Findings: Intelligence quotient 111; this rates him a *little* higher than average normal intelligence, and places him in the superior-intelligence group. He re-

ceived a rating of good in speed tests; good in accuracy; good in learning; good in arithmetic; and fair to good in filing. In the picture completion tests, where the associations employed indicated good or faulty judgment, he received only a fair rating. He was somewhat slow in seeing pertinent points.

He has a very pleasant, agreeable, and courteous manner. He is quite accessible and makes a good first contact. He talks rather deliberately and his mind seems to work a little more slowly than the average. His grasp of situations is not quick, clear, and prompt. Nevertheless, he has a solid viewpoint, definite interest in succeeding, and a positive ambition in mercantile work. He is an ambivert type, with only average energy output and has not the aggressive, alert, lively make-up so desirable in outstandingly good merchandising material.

It is believed that he will compensate for some of the shortcomings in his personality by his determined, positive insistence on succeeding in whatever he undertakes. He seems fairly well integrated and he has a sane, healthy outlook on life. His freedom from personality disorders and difficulties, his agreeable manner, his positive interest in mercantile work, should insure a reasonable success in the personnel field.

Social Findings: This individual is single and lives in —— with friends. He graduated from —— in 1922 with a B. A. degree. In 1926 he attended —— University Business School. He came East with the intention of taking just one year at an Eastern college. For a few months he had an out-of-door job in the Bureau of Mines, in an adjoining state. This was simply a temporary job. For four months he worked in New York City, doing office work. He left because he saw no future for himself with that company.

Job Behavior: Our work investigation indicates that he

has a pleasant personality, is cooperative and willing to work. He has a certain amount of initiative, but it does not seem to be well directed. He falls just short of being successful. The department heads commented on the fact that he comes to tell them what he is doing rather than going ahead and doing it. He manifests a great deal of activity, but the results are not in proportion. He is a little slow in catching on to the work. The buyer advises a transfer to a department which is smaller and makes less demands on a head of stock. His knowledge of stock is limited. His main interests are in people and his departmental contacts are good, but his judgment along merchandising lines is poor.

Conclusions and Remarks: We have here an employee with good sales appearance, a little better than average intelligence, a fairly well-adjusted and pleasing personality make-up, who is vitally interested in making a success in the mercantile field. He lacks a keenness and shrewdness of mind, a sharp sense of values, and an ability to make quick and effective personal contacts that marks the high-grade merchant. He strikes one as not being ripe yet for a responsible executive job. Nevertheless, there are many qualities that should render him of value in perhaps a section manager's job, and it may be that under careful guidance his development will prove satisfactory. He is undoubtedly promotional material and should be retained in the store.

It might be well to introduce a case abstract showing a failure in the section manager's job in order to reemphasize the importance of a well-integrated personality make-up in dealing in a supervisory way with workers. Issues affecting the mental health of an executive will inevitably affect the contact he makes with others and the confidence they manifest in his judgments and decisions.

CASE 1,496—MALE, AGED 33 YEARS.

Problem: Applicant for section manager's job.

A young man of high average intelligence (I. Q. 108), well dressed and fairly smart in appearance, with a lively, active, and apparently energetic personality make-up, applied for employment as a section manager. He looked to be good material and was referred by the Employment Department for a psychiatric study.

Upon examination there was disclosed a history of gastric ulcer, low blood pressure, and an unstable, poorly adjusted emotional life. He was not particularly alert and observant and showed a tendency to mental reverie of an unhealthy nature. There was evidence of feelings of uncertainty and a lack of security—an inferiority complex to which he was over-reacting and in his compensation was trying to give the impression of self-confidence and aggressiveness. Because of his mental maladjustment he appeared to us as likely to be unconvincing and ineffective with sales clerks, so we advised that he be not employed. Presenting the psychiatric aspects of the liabilities in this case, we reported him as "very doubtful risk in any management job."

He was employed and for the five months following his employment he has continued to be a problem. The last job behavior investigation made (within a few days of this writing) is as follows: "In handling sales clerks and customers he has been untactful and undiplomatic. He says the wrong thing and antagonizes by his too direct and at times even accusing manner. He shows lack of judgment in reprimanding clerks before others, and using a raised tone of voice that attracts attention to the incident and in making a long story when a few words would suffice.

He is lost in a new situation, appeals to superiors with trifling things rather than real difficulties. He does not seem to be disturbed by lack of order in the department and is not observing of small details or keen in his supervision of his clerks. He does not carry weight with his subordinates, with the result that they repeat minor offenses—*e.g.*, grouping—and know that they do not need to be on the alert continually!"

Qualities Distinguishing Heads of Stock from Section Managers: Our study of these two junior executive sales jobs show rather well-defined, distinguishing characteristics that mark the most desirable heads of stock as differing in their make-up from individuals we select as section managers, the principal differences lying in the field of personality make-up.

A Younger Group on the whole is preferred for head-of-stock jobs than for section managers. Theoretically, all heads of stock are in training for buyer's position later on. *Youth* and *immaturity* in a section manager militate against his effectiveness as a supervising executive, particularly in dealing with disciplinary matters.

As to Previous Education, a study of cases shows that the college-trained mind more frequently wins out in merchandising here than those with lesser educational achievements, while with many of our section-manager group the opposite has proven true. (In the latter group, high-school education is the maximum requirement.)

Special Work Experience is not at all important in a head of stock, while section managers who have had previous experience in a supervisory capacity, particularly if in a mercantile establishment, have secured an equipment that is valuable in their duties as personnel people.

Intelligence: There are differences in the intelligence quotients of employees succeeding in those two jobs. The majority of our successful heads of stock have I. Q.'s above

109, belonging to the superior intelligence group. While the majority of section managers studied have I. Q.'s from 90 to 109 and are of average intelligence. We have studied many very successful section managers whose I. Q.'s were in the 80's, being classed as of dull intelligence.

Personality: It is, of course, in the personality make-up that the greatest differences are found between these two groups. The best section managers are primarily extroverts, while the best heads of stock are mildly introverted. The former are fundamentally interested in and are most effective with people. The latter are most highly specialized in materials and things. The section managers who are most successful are objective and particularly observant, having developed habits of observation that enable them to note quickly issues requiring disciplinary and corrective measures. These characteristics do not occupy the same importance in the head-of-stock job. Heads of stock and merchandising people need style sense, a thorough knowledge of goods, a real interest in materials, a keenness and shrewdness in judgment, a so-called bargaining ability and sense of values, an interest in prices, considerable imagination in handling people, and an independence in thinking, etc.—issues that do not necessarily distinguish the section manager in performing his job.

Both, in order to be acceptable employees and good personnel material in general, should have healthy bodies and healthy, well-adjusted minds. They should be alert, aggressive, convincing, industrious, dependable, effective in contacts with others; possess a good sense of responsibility; have a stable, well-integrated personality with good insight into their own problems; and a common-sense view of reality.

Conclusions: In this article we have outlined a method for selecting junior executives that presents a formal and critical approach to the problem—an approach that is

more unprejudiced and objective in its technique than that offered by the usual common-sense procedure generally employed. (This approach is fundamentally clinical rather than laboratory in nature; it emphasizes a thorough knowledge of the job and its environment; a careful analysis of the duties of the job and of the physical and mental factors involved in their performance; a clinical and psychological study of the personnel engaged on the job; a determination of the qualities and characteristics of the best and worst workers; an outline for a fairly rigid scheme of personnel qualifications, and, finally, a routine, well-rounded study of each candidate, carefully checking him up against the standard qualifications.)

This method has not, in the long run, proven more costly and time-consuming than the trial-and-error method in common use, when it is borne in mind that errors in choice of the right person are made less likely.

The results achieved in studying promotional cases have justified a great mercantile establishment in making it a routine procedure, and the lessons now being learned through such a detailed analysis of the successes and failures among executives give promise in the way of evolving general principles that will be of considerable future value in the guidance of management. For we have here the advantages of the experimental procedure in general in that it enables us to repeat the same processes over and over again and constantly check our findings in each instance against the failure or success of the individual, thereby improving our knowledge and technique.

It is obvious that the same outline of case study is employed here as in that of problem workers, the only difference being the great stress laid upon the job-behavior phase of the investigation. This aspect of the study of the personality, as it adapts itself to the job environment, gives a behavioristic viewpoint of abilities and disabilities, trends

and habits, that cannot be adequately gotten through the introspective method of the interview. This descriptive account of the job adjustment career of the employee proves more valuable in the final diagnosis of the personality than material secured through the "rating scale" method.

Such a plan as we have outlined for selecting executives has naturally less to offer small business concerns than larger organizations. In small concerns where candidates for executive jobs may be under the keen eye of superior officers with whom they associate daily, the need for such procedures in the promotion of employees to executive jobs is not so definite. The daily behavior of the worker, the intelligence and interest manifested in his work, the reliability and conscientiousness shown in performing his job duties, bring out qualities of the personality that are recognizably executive or non-executive in nature. To be sure, even here the service of the psychiatrist in diagnosing the implications of certain covert mechanisms in the personality in relation to future work placement may be profitably considered.

However, in large organizations employing many thousands of workers the matter of selecting good, executive material is one of considerable importance and one that is difficult of achievement.

CHAPTER IV

Scientific Job Placement and Guidance for Young Workers

Next to frank cases of job misfit and work failure so commonly met with in industrial and business life, the psychiatrist finds no personnel problem more compelling than the suitable guidance, proper job placement, and personality development of young workers.

This is an activity which is increasingly demanding the attention of our psychiatric facilities.

Our interest, which is preventive, rather than curative, is in the study, placement and guidance of all young workers rather than the treatment of a few who have failed, for we know that the conditions of youth in and of themselves, when without guidance, are determining factors for unstable work careers and, later on, possibly, of vocational failure.

We know that much can be accomplished at this period in definitely preparing young workers for meeting the apparently harsh and often grinding circumstances of later business and industrial life. But this preparation is not to be thought of purely in terms of arithmetic, geography, English, and other academic subjects, or solely in the ordinary accepted moral and religious issues involved in character training. Our own experience has justified us in believing that the correct job placement according to their abilities and disabilities, and the careful guidance given to certain junior employees in the way of developing good work habits, healthy mental attitude, proper job

and vocational interests, purposeful use of energy output, physical and mental hygiene, and rational insight into personal problems and relationships has laid the basis for their later salary progress, work success, and well-deserved promotion.

This same experience has taught us how avoidable has been much of the improper job placement, unsatisfactory production, repeated and futile transfer, and final resignation or lay-off of many young workers, coming fresh and full of hope from the public schools to their first work opportunity in the business world.

Unquestionably, the habits that lead to work mediocrity and job failure start in youth and adolescence.

Turnover, or job separation, among young people under twenty years of age is out of all proportion to any other group. In our own sales force the separation from the store of those under twenty years of age was thirteen times the frequency to be expected from this age grouping, taking into consideration the turnover of the force as a whole. Of course, youth is a period of instability, adventure, unformed goals, and inadequately integrated personality trends. The time of life when the pot of gold at the end of the rainbow is a reality, when other fields are always greener than those near at hand, when some other job or job environment has more to offer than the one now engaged in that seems so dull and uninteresting, when continuity of effort, planfulness, and purposeful use of energy have not only not become habitual, but are not appreciated.

Experience, however, teaches insight and an understanding of reality as it is, sloughs off faulty work habits and unprofitable ways of meeting situations, develops purposeful, useful, and efficient short cuts to achievement, but in many people experience of this sort comes late in life or not at all. Some people never grow up, and ex-

perience, instead of maturing and ripening, seems simply to carry over the faulty characteristics of adolescence into adult life. And so we have the underdeveloped, inadequate or difficult, or poorly integrated or unstable workers whom we call job misfits or work failures, or mediocrities, or ne'er-do-wells, or weak sticks, etc.

It was with these things in mind, and the careers of several thousand job misfits in our files, that we turned with some degree of enthusiasm to the preventive side of personnel work—to the vocational and psychiatric study as well as guidance of young employees, fresh in their contacts with industrial and business life. How and why it became the policy of a great mercantile establishment to give such individual and scientific consideration to its apparently least profitable employees—its junior workers, its messenger boys, its stock girls, merchandise checkers, and the like—is less our interest here than are the methods that are being employed in this new personnel approach and the results that are being achieved.

For the purpose of illustration we will discuss in some detail a typical department of juniors—one made up almost entirely of employees under eighteen years of age. In this discussion we will try to give some idea of the sort of job placement and guidance work done—the nature of the studies and the results achieved for the store as well as the individual.

Promoting Merchandise Checkers: *The Job.* A merchandise checker is a packer stationed on a selling floor. She receives merchandise from sales clerks, checks the sales slips and price tags, wraps the package, and returns the goods to the particular clerk from whom she receives it. Her duties are relatively simple and require no considerable amount of intelligence or education; she must, however, have fairly good motor dexterity, be speedy, honest, industrious, and cooperative. The job itself does not

require of applicants either experience, previous special training, or any very specialized abilities. It is simple in performance and small in remuneration; for the nature of the work done does not justify the sort of salary that would warrant keeping employees permanently as merchandise checkers.

There are about four hundred merchandise checkers in the store at any given time, with the exception of the pressure period of the late fall preceding the Christmas holidays. During a given year approximately thirteen hundred individuals were employed to fill these jobs. The turnover in the department has been out of all proportion to the store as a whole.

The Personnel. In order to get an understanding of the type of people employed for the job we made a study of one hundred and fifty new employees, taking the "run of the mine" for a period of four months and seeing each individual following her employment.

We found that the average age of new employees was seventeen years; that their schooling was very limited—90 per cent had never gotten beyond grammar school; their intelligence examination disclosed the fact that 73 per cent had intelligence quotients below that of average normal intelligence.

The fact that only 10 per cent had been able to get further than grammar grades and only 27 per cent had normal intelligence was a rather striking commentary on the potential possibilities of the merchandise checking group.

Our study of these individuals, however, indicates that approximately 50 per cent could be incorporated into other and better jobs, after a short period of experience at M. C. work. But, in taking the record of individual cases, what appeared to be happening as far as personnel placement was concerned was that young people with no very

specialized equipment, but ambitious and promising, have taken the job temporarily and have resigned upon getting better work, as too long a period as merchandise checker was inevitable before transfer. While older groups with little education and subnormal intelligence have been satisfied with the job and have remained with the department.

In time, and according to seniority of service, the older and more dependable employees deserving reward for good work as merchandise checkers have thereby become entitled to promotion to more profitable sales or non-sales jobs. To be sure, as a promotional scheme this plan did not pay good dividends, for too large a percentage of those transferred failed to turn out satisfactorily and either resigned or were laid off. This is what could have been expected from the type of personnel promoted as they were "M. C. types" and were better suited for M. C. work than sales or clerical, etc.

It became evident that seniority of service was in no measure a qualification for high-grade salesmanship or effective production at any job, and that transfer from the department on this basis would exclude the more alert, aggressive, and capable types who in time would resign, leaving in the department the limited, the subnormal and inadequate, types.

A promotional scheme for young people planned on the basis of their abilities, their disabilities and possibilities, rather than the length of service, ought to prove profitable to the store as well as to the youthful worker. For a certainty of promotion within a reasonable period would hold many a promising individual. In this way the merchandise checker job would be used as a stepping stone to better work and as a training station for senior jobs. It would thus offer the youthful employee an experience and a discipline that are in reality profitable in the way of developing good work habits; and would give

to the store an opportunity for trying out young and undeveloped but promising material in a location that is particularly well suited to observing job adjustment and work behavior.

As it was, the store was not getting the best results, either in the way of developing personnel for its more important jobs or in maintaining a stable department group for effective service at M. C. work.

With these things in mind, the management decided upon the following program:

New Procedure Relative to Promotion: "Any merchandise checker who has been an employee six months may apply to the department head for transfer to the particular job in which she is interested. She will be immediately recommended to the Employment Department for transfer. That individual who interviews for the job to which she wishes to transfer will go over her case and, if she passes the required psychiatric and psychological examination, will put through the transfer in question. The Psychiatric and Psychological Department, which is the Conference Office, will study her from a general vocational viewpoint and not alone for the particular job in question, and its recommendations will determine the job to which she is to be transferred. All new merchandise checkers, immediately upon employment, are to be notified of this ruling."

Two steps have here been taken, first, making certain the opportunity for promotion; second, making available to every merchandise checker the store's vocational facilities for a medical, psychological, and psychiatric study of her job and personnel possibilities. This unprejudiced and careful clinical and psychological inquiry is of benefit not only in properly placing her according to her job abilities and personality fitness, but in giving her an insight into her own make-up and in acquainting her with

those traits of character and personality trends, those faulty habits and attitudes, that may make for job failure unless corrected; at the same time that emphasis is laid upon those qualities and special abilities which, if fostered, lead to success.

This matter of individual and personal guidance of young workers turned out to be preeminently the important problem.

Type of Examination Given for Promotion of M. C.'s: Each candidate for promotion is given a careful individual inquiry covering a period of approximately two hours. This investigation, conducted by psychiatrists and psychologists, includes a physical examination, an intelligence and special-ability study, a personality examination, a social-history and a detailed job-behavior investigation. (The forms used for such a study may be found in the appendix.) This whole study is briefly summarized in the light of each employee's personnel value for the store in general and special qualifications for a specific department and job in particular. This information is now "sized" up against the standard personnel qualifications that we have set for this or the other job, and recommendations are made accordingly, for transfer to sales (having in mind the particular sales department) or clerical in receiving department, or merchandise control in Controller's Office, or tracer or other job in the Bureau of Adjustments, or cashier, or marker, etc.

After the transfer has been put through, the Employment Office then begins a constructive follow-up régime aimed at insuring the effective job adjustment of the worker. As to the nature and importance of this guidance work it is probably unnecessary for us to go into any detail, more than to refer to frequent personal interviews in order to get at the mental content and emotional satisfaction of the worker, and in order that we may guide him

or her into a full insight and realization of his or her own personal and job relationships and responsibilities.

Illustrative Material:

L. R.—Female, aged 18 years.

Problem: Referred by Employment Office for study as a transfer—preferably to clerical.

Physical Findings: She is underweight, has low blood pressure, but does not feel tired or have any symptoms of fatigue. Her vision is defective in both eyes, partially corrected by glasses. Health history shows repeated attacks of tonsillitis. She had tonsils removed last summer and has been all right since. Hospital medical card shows consultations for dysmenorrhœa, sprained wrist, and gastric disturbance. Height, 5 feet 1 inch. Weight, 96½ pounds. Blood pressure, 92/58 mm. At present claims to be in good physical condition.

Mental Findings: *Psychological Study.* Miss —— has average intelligence (I. Q. 95). She showed fair ability on the tests as a whole. She was rated fair in arithmetic, having solved correctly 13 out of 22 problems; fair in speed; irregular in accuracy; poor in motor dexterity (card sorting); good in finger dexterity (pin test); fair in legibility.

Personality Study. Her appearance is satisfactory. She was neatly and tastefully dressed. She was alert, responsive, and talked without any hesitation whatever. She expressed herself well and talked interestingly. She is an extrovert and no personality difficulties were noted. She seems lively and happy. Her energy output is good and she is an effective worker. She is aggressive, but makes good contacts and has a good and healthy attitude

toward her work and personal relationships. Miss —— has been interested in her M. C. work, wants to get ahead, and wants a placement which would offer opportunities for advancement. She feels that her experience has been a valuable one, says that she has learned much concerning the actual merchandise. Volunteers that she does not want to seem boastful, but she feels that she gives helpful information to the sales clerks and that she knows the processes of the section-manager job. Her first ambition is to sell, but she has been discouraged in this because of her size. She has an interest in clerical work and has been particularly interested in tracing in the B. of A. She likes people and feels that she gets along well with them, says concerning her relationship with the sales clerks in her department, "They take me in as one of them." She is not fatigued by her work, saying that when she gets out at night she feels that she could "run and jump." Standing all day does not bother her and she attributes this to her previous athletic experience.

Social Findings: She is single and lives with her family. She has two younger brothers, both in school. Her father works regularly and there are no domestic or financial difficulties. She had three years of high school and three or four months of business school. Her only work before coming to Macy's was five months selling toys in an uptown store.

Job Behavior: Individual is packing in a simple job, but the head packer indicates that there are many personality situations within her department to be adjusted to, and these she meets effectively. She gets along satisfactorily in performing the actual processes of her work, from a qualitative as well as a quantitative viewpoint. There are no complaints concerning her accuracy and she collects a good number of premiums. She is not irritating to the sales clerks concerning the premiums. She is

orderly and systematic in handling her work, and is also always neat in her personal appearance. Both the head packer and the section manager agree that she has a good knowledge of the merchandise. She shows no confusion or resistance when asked to handle an extra amount of work at the desk, and rarely ever asks for any extra assistance. The section manager has found her to be cooperative, feels that she makes good contacts with people quickly, and has found her to be alert and responsive. She is physically active, always pleasant. She knows considerable concerning the store system and sometimes explains different points to the sales clerks. Her job behavior has been such as to indicate good personnel material.

Conclusions and Remarks: Miss —— has average intelligence and her personality seems suited for Bureau of Adjustments work. She is interested in the job of tracing, and we feel that she has the ability to do this work plus a personality which would make the adequate contacts so necessary to a proper work performance in this job. (The job of tracer involves making contacts with sales clerks and other employees in connection with securing information about the facts of a purchase not satisfactorily completed and about which the customer has complained.)

X. Y.—FEMALE, AGED 18 YEARS.

Problem: Referred by Employment Department for study as a transfer from merchandise checker to sales.

Physical Findings: Height, 5 feet 4½ inches. Weight, 138 pounds. Blood pressure 116/78 mm., normal. She is in good physical condition. Health history negative except

that she needs glasses and suffers from eye strain. Medical card shows a few consultations for cuts, strained wrist, and headache.

Mental Findings: *Psychological Study.* Miss —— secured an I. Q. of 112, classifying her as of superior intelligence. On the arithmetic test she solved correctly 14 out of 19 problems attempted, giving her a rating of fair. Her rating in speed was fair to good and in accuracy poor to fair. Her legibility was fair minus.

On the completion tests she showed good judgment. Although she did not seem particularly interested in the tests, she was cooperative and attentive. She was very quiet, grasped instructions quickly, and followed them carefully.

Personality Study. Her appearance was entirely satisfactory; she was neatly and quietly dressed. She talked without any hesitation and expressed her ideas pleasantly and interestingly. She seems to be a girl who thinks things out for herself and forms her own opinions, and this appears to some extent to make her seem rather inadjustable. In make-up she is an ambivert and she has mild personality difficulties. Having a tendency to worry, she shows varying moods and takes things in a rather serious-minded way. Her ambitions are rather definite and logical and her efforts in their maturation have been logical and well planned. Her contacts are satisfactory. She is pleasant, likable, and inspires confidence; is alert, aggressive, and fairly well adjusted. Has reasonably good insight as to herself and her work relations.

She likes her job, but, as she and her mother live together and her mother's health is poor, she would like to secure a position where her salary would be large enough so that her mother would not have to work. Further, she feels that her present job affords little opportunity for advancement. She would like to be a salesgirl. The salary

motive is the dominating factor in her desire to change positions.

Social Findings: She is single and lives with her mother; has no sisters or brothers. Her mother runs a double needle machine in a clothing factory. Her financial status is not very good. Her father is dead and the two of them are dependent on their earnings. Her mother's health is not good. She seems to be dependent on her mother and too closely attached to her emotionally. She graduated from grammar school at the age of sixteen, but she did not start until she was twelve years old, when she came to this country from Switzerland. She tried going to night high school, but found it was too much for her, so she gave it up. Her only work before coming to Macy's was taking care of children, which she did for three or four months, a few hours a day.

Job Behavior: Miss —— has proved very satisfactory in her work. She has shown interest in the department and a responsible attitude. She is satisfactory as regards speed, accuracy, ability to follow directions, and system. She does not mind routine work and does not get confused. Toward her supervisors she is cooperative and toward her associates pleasant. She takes an interest in the customers, sometimes waiting on them; she has shown quite some initiative in this respect. One customer remarked to the section manager that the girl had been "so sweet and helpful." She is lively, friendly, pleasant, alert, responsive, adaptable; average in energy output. She is ambitious, being eager to sell. Her appearance is neat, her manner is refined and courteous.

Conclusions and Remarks: Miss —— has superior intelligence and a personality which is suitable for selling. We believe she is satisfactory material for sales and recommend her transfer. (She was transferred and has made a satisfactory salesgirl.)

C. A.—Female, aged 18 years.

Problem: Referred for examination as a proposed transfer from merchandise checker to a sales job.

Physical Findings: Height, 5 feet 3 inches. Weight, 126. Her vision and hearing are good; her blood pressure is normal and her health history is entirely negative. She is at the present time in good physical condition.

Mental Findings: Miss —— is subnormal in intelligence (I. Q. 75); she received a rating of poor in speed on her tests and fair in accuracy. Her mind worked slowly and she did not learn well. She was poor in arithmetic, poor in filing, poor in general motor dexterity, poor in legibility, but good in finger dexterity and in marking tests.

Personality Study. Her appearance is not good—she is rather untidy and careless. During the interview she was uncommunicative and appeared stolid and unresponsive. She had difficulty in answering the simplest of questions, on account of her self-consciousness. Her conversation was greatly limited, superficial, and lacking in originality. She is an introvert and has feelings of insecurity and inferiority. With it all she is earnest, courteous, and particularly anxious to hold the job and get a better one when the opportunity arrives. Her personality shows conflicts and complexes arising out of a belief in her own inadequacy and introspection and pessimistic reveries over financial difficulties and home problems. She gives the impression of reliability and honesty, but undoubtedly is greatly limited from a personnel standpoint.

Social Findings: This individual is single and lives with her family, consisting of mother and father and three brothers and sisters. She is the only one working besides the father, who is a laborer and does not have steady work.

There is a rather acute financial problem at home. She graduated from grammar school at the age of seventeen years, and has had no other work prior to coming to Macy's, where she has worked for a year as a merchandise checker.

Job Behavior: Her work has measured up to the requirements of her department. She is interested and attentive; performs the packing job slowly but accurately and efficiently. Has been in the department much longer than others who have secured transfers to more lucrative positions; because of this, and the fact that others have spoken of it, she has recently become sensitive over "being nothing but a merchandise checker." She is industrious and keeps steadily at work, minding her own business and concentrating on the duties of her job. Her work habits are splendid, though her capabilities are recognizably limited.

Conclusions and Remarks: This individual, because of her subnormal intelligence and her personality limitations, gives little promise from a personnel viewpoint. She is totally lacking in those qualities that characterize a sales personality, she shows no talents along clerical lines and has none of the qualities for cashiering. Her tests indicate an ability to do "marking" (which is a very simple job, consisting of putting price tags on merchandise or marking the cost of goods; the job pays somewhat better than M. C. work). She is a plodder type, is reliable and conscientious, and we recommend her transfer to this job.

N. L.—FEMALE, AGED 18 YEARS.

Problem: Referred by Employment Office as candidate for transfer from merchandise checker to sales.

Physical Findings: Height, 5 feet, 3½ inches. Weight, 131½ pounds. Vision far-sighted in both eyes. Blood

pressure normal. She seems to be in good physical condition. Health history is practically negative. Hospital record shows four consultations for minor ailments.

Mental Findings: *Psychological Study.* Miss —— took the tests with a willing manner. She grasped the instructions readily and worked on the tests steadily. She secured an I. Q. of 106, which gives her a classification of average intelligence. In arithmetic she was rated fair, having solved correctly 14 out of 22 possible problems. Other ratings are: speed, fair; accuracy, fair to good; legibility, good; filing, fair; finger dexterity, good; motor dexterity, fair.

Personality Study. She is neatly and tastefully dressed and her appearance is good for sales. She is a rather pretty young girl, has a thoroughly attractive, nice appearance. She talks easily and has no difficulty whatever in expressing her ideas. She was very pleasant and cooperative.

Her personality make-up is that of an extrovert and she has no personality difficulties. She seems to be well integrated and effective in her use of energy. Her initiative is good and she is both convincing and aggressive. Her attitude toward her work and toward her superiors is good. She likes her work, but also likes helping in the department with stock work when the desk is not busy. She would like to sell in the same department because of familiarity with the merchandise. She is particularly anxious to go into selling because it offers an advancement in salary. Her attitude toward associates and superiors is friendly and cooperative.

Social Findings: She is single and lives with her family. There seems to be no difficulty of any kind in the home.

She graduated from parochial school at the age of fourteen. Her first work was in a factory, where she did crochet beading and rhinestone setting on dresses. She

worked there two and one-half years and left because of slack work. She then came to Macy's.

Job Behavior: Our investigation indicates that her work as merchandise checker in department —— was quite satisfactory. Her desk was kept in good order without supervision. She made few errors and worked at a sufficiently rapid rate to keep the desk clear. She had no difficulty in personal contacts with associates or superiors. In fact, she was always very willing, and when not busy would ask to help others.

Conclusions and Remarks: Miss —— seems to be good material for sales and we recommend her transfer. (This individual was transferred and our last report, several months later, shows that she is regarded very highly in the department, sells well, and runs what is called "good books.")

T. A.—FEMALE, AGED 18 YEARS.

Problem: Referred by Employment Office; question of transfer to clerical.

Physical Findings: Height, 4 feet 10 inches. Weight, 92½ pounds. Blood pressure, 88/56 low. Vision slightly defective in both eyes. She is tiny and underweight and her blood pressure is very low, but she seems to be in good health. Hospital medical card shows consultations for headache, and foreign body in eye.

Mental Findings: *Psychological Study.* Miss —— received an I. Q. of 107, giving her the classification of average intelligence. Her rating in arithmetic was poor, since she solved correctly only 10 out of 19 problems attempted. Her speed rating was fair plus, and her accuracy rating poor plus. She was inaccurate on all her tests. Her rating in judgment according to the comple-

tion tests is very poor. On this test she made very superficial observations. She did not grasp the sequence between the pictures, but just tried to fill in the blanks.

Personality Study. Her appearance was fairly good—was about the average in neatness and general care of clothes and person. She was very winsome, pleasant, and responsive during her interview. She talked without any hesitation—in fact, seemed too confiding. While she expressed her ideas well, there was a noticeable lack of definiteness in the way that she expressed things.

In make-up she is an introvert and has very marked personality difficulties. She is very imaginative and given to daydreaming. She admits that her imagination rules her actions and that she daydreams all the time, living in a world largely of her own creation. In keeping with this poor sense of reality and her extensive reverie life are her literary ambitions, for she burns with the desire to be a writer, though she has demonstrated none of the qualities that would justify reasonable hopes in this direction. However, she has sent several articles to magazines, but none have been accepted. Her contacts are good. She is likable, accessible, and appears trustworthy and genuine.

Individual has been working at present job about seven months. She finds the work monotonous and thinks her salary is "pretty low" for a girl of her type. She did not like her old supervisor—says she told her new supervisor that after she had had her for a week she would want to send her back. Old supervisor says she daydreamed on the job. She likes her new supervisor and says that she will stop daydreaming. She is working because she has to help support the family; she did not do well in school, so parents made her go to work. Says she is poor at arithmetic, so she feels she cannot do clerical work. She seems to have little insight concerning her job, what actual work she wants to do, or her real possibilities. Her writing is

a compensatory effort in dealing with defeat in school and at work. She seems cooperative, pleasant, cheerful, but poorly adjusted. She would make better progress if she received some suggestions as to how to better her habits, live in a world of reality rather than make-believe, and understand how unprofitable as well as unhealthy is her present phantasy life.

Social Findings: She is single and lives at home with her family. Her father runs a dairy and her mother helps out. She has three younger sisters. There are no financial difficulties, but this girl does not feel entirely at ease in the family. She does not think that they understand her very well and are not very much in sympathy with her dreams and aspirations. She had one year of high school, but did not get along very well and decided to quit. She had trouble in mathematics and Latin. Her parents would like her to go back to school. Macy's is the first job that she ever held.

Job Behavior: This young woman manifests some interest in her department and a desire to get ahead financially. But she makes a great many errors at work, and in performing her duties she is extremely slow. She is lacking in initiative and needs close supervision. She has not shown any ability to be orderly and systematic—once, when given a special job, was very unsystematic. She does not mind routine work; does not become confused under pressure, but does get "nervous" when spoken to by head of the department. She is a quiet type of girl, although not unsociable. She is slow, not alert or observant—at times she appears to daydream. She is fairly responsive, always pleasant and cooperative, non-aggressive—she is very sensitive to praise.

Conclusions and Remarks: Miss —— has average intelligence, but her special tests show poor ability in clerical work. Her personality make-up is imaginative, she is

poorly adjusted, her sense of reality is poor, and she is emotionally immature. Her conflicts with actual reality are well marked and she withdraws into a make-believe world. We do not feel that she is good material for clerical work and would not recommend her transfer to any other job at present. We do recommend her follow-up and psychiatric treatment by this office inasmuch as she has been considered by the management for a lay-off unless her work adjustment can be improved. (In this particular case transfer was not put through, but psychiatric treatment was instituted and she is at the present time undergoing a careful adjustment and guidance régime.

The Results Achieved in Given Cases: In order to see what results were being achieved by this new procedure in dealing with the promotion of young workers, we have made several careful follow-ups on the first one hundred cases, and a sufficient time has now elapsed,—from six to twelve months—to enable us to speak with some degree of positiveness as to our success or failure in individual cases.

Out of the first one hundred cases, we recommended 67 per cent for transfer to other and better jobs, and rejected the other 33 per cent of cases.

Of the group recommended for transfer, we advised transfer to sales in 70 per cent of cases and to non-sales in 30 per cent of cases. Of those transferred to sales, 90 per cent made good, were regarded as satisfactory. Of those transferred to non-sales, all made good and were regarded as satisfactory.

It might be interesting to mention something of those who were recommended but did not make good after being transferred to sales. One young woman "started out well and was very satisfactory for about two months. Then she married and later seemed to be having home

difficulties. Her work deteriorated. Her attention was elsewhere. Her stock work was carelessly done and she finally resigned."

Another case turned out to be a grabber—"slipped in and interfered with the sales of other clerks." Stealing the customers at every opportunity, she aroused antagonism in the department and they were unwilling to keep her long enough for any adjustment work. She was laid off.

The others developed departmental and home problems that interfered with their success and they either resigned or were laid off. But the high percentage of successful placement justifies thoughtful and scientific study of all such transfers.

It will be remembered that in 33 per cent of cases we did not recommend transfer. However, transfer was made in four of these cases. (One was transferred to a sales job and, not making good, was laid off; one was transferred to the Controller's Office as a clerical worker and proved unsatisfactory; another was transferred to the Controller's Office and is fitting into her job very well; another was transferred to a marker's job and, after proving unsatisfactory, resigned.)

Many of these cases not recommended for transfer were merchandise-checker types—that is, they had the intelligence, education, and personality make-up in keeping with M. C. work and *were not suited at the time for better jobs.*

"Noted Changes in Employment and in New Personnel": It has been more than a year now since the new program of systematic study and promotion has been put into effect. Not only should a much larger percentage of successful promotions or "transfers that have taken" have resulted (and this we have shown to be the case in our statistics previously given), but a change in the type of personnel now coming on to the job should have been

brought about. The work itself should have attracted a better type of employee and the department should be filling up with young people of greater promise. We will remember that in our original study we found the average age of new employees was seventeen years; that 90 per cent had never gotten further than the grammar grades in school (had shown marked retardation); and that 73 per cent had intelligence quotients less than that of the average normal intelligence limit of 90 I. Q. and were dull and subnormal in intelligence.

We have now very recently gone over the last 100 new employees and we find quite another picture. The average age is still seventeen years, but 54 per cent of the new employees have had high-school education, while 58 per cent have intelligence quotients above 90 I. Q. and are of average normal or superior intelligence. Finally, there is an additional fact of some little interest, and that is, for the last year the turnover figures of this department are lower than they had been previously.

Conclusions: We have sought to present in the foregoing pages an illustration of the sort of work that we think should be done in the job placement and guidance of young workers. We have given a picture of one typical group where this type of thing is being routinely accomplished and we have pointed out the value to the individual, as well as the store, resulting from such an intelligent and well-planned program in handling transfers.

The financial and social saving is obvious and needs no elaborate discussion. For anyone familiar with human problems will see the enormous opportunity, of a preventive as well as developmental nature that lies in constructive and individual personnel work with junior employees.

The cases used are absolutely typical of the sort of workers engaged in the merchandise-checker jobs of the store at the time our study began; and as one reviews, in

the hundreds of cases studied, the great variety of individual and personal problems, other than pure job placement, commonly presented by the majority of these young people, one cannot help being struck with the effects of the costly failure upon the part of the school system to recognize mental health as being of as much importance as the height and weight, or tonsils and adenoids, that are so commonly and repeatedly scrutinized during the public-school period.

Hordes of boys and girls are turned out into industry each year whose work habits and mental attitude toward reality, whose ways of meeting important life situations and whose personalities are so immature and infantile as to invite shipwreck when later faced with the job and work difficulties of everyday life.

The common job failures and job misfits, the lay-offs, the discharges, and resignations that we daily come in touch with among these young people just starting on their work careers, are not traceable to a lack of instruction in geography, arithmetic, English, etc., nor to some temporary situation arising in connection with their work, as often as they are the outcome of deep-seated personality defects that should have been recognized and intelligently dealt with, in all justice to the individual, much earlier in the game and at a time when preventive work gives promise of successful achievement.

There is no particular reason for feeling that the business man will assume the full responsibility for dealing in a constructive way with these problems. Mental hygiene in the public schools and psychiatric and psychological guidance in the training and development of each child is the ideal to which we must look for their solution.

These brief abstracts of the case histories of average merchandise checkers show how limited a part psychological tests play in an adequate study, job placement, and

guidance of individual workers. Vocational guidance on the basis of simply testing certain abilities is not the type of professional counsel and advice that gives to the individual the knowledge needed for meeting the many difficulties involved in selecting and holding a job. The many and varied factors that are commonly responsible for defeat or victory, failure, or success, justify us in rating as most important and essential a thorough medical and psychiatric study of the total personality and of the entire life career.

CHAPTER V

Job and Personnel Surveys

Methods Employed and Results Achieved: Department reviews or surveys are personnel procedures which become of interest here solely from the fact that the psychiatric and psychological conception of methods to be employed, and the results to be achieved, are so different from the ordinary technique generally followed as to justify a rather careful presentation of our viewpoint.

We see in personnel reviews, carefully organized and properly conducted, immense value through the opportunity afforded for developing, perfecting, and integrating the personnel activities of an organization into a unified, comprehensive, and non-duplicating program for improvement of personnel, working conditions, and production of different departments.

Comprehensive reviews of the personnel, the jobs, the salaries, the working conditions, and the environment of each department are essential if the management of the organization is to maintain that close and well-informed contact with individual problems and vital departmental issues affecting personnel and production that enables it to function effectively.

Such a review presents to the department head an opportunity for learning more about the abilities and disabilities of his people, as well as demonstrating to the management how well or poorly informed he is regarding his own staff. It brings to the foreground all questionable problem employees, as well as the good personnel material in the

department, and makes possible an intelligent and just lay-off as well as transfer and promotional program. The realization on the part of the department head that the highest personnel standards of the store will have to be carefully maintained and that his own methods of carrying out these standards will be critically reviewed has an undoubted check on any tendency to negligence or unfair or high-handed or prejudiced attitude that he may exhibit. Above all has it a stimulating effect in the opportunity it offers the department head to demonstrate his ability in retaining and developing a high-grade group of employees whose production is an asset to the store, and in inspiring each employee to the best possible production of which he is capable.

One of the most outstanding contributions from such a department personnel review is a consistent health program—a physical and mental hygiene régime—for each employee. A program that sees in the routine physical and mental reexamination the only basis for the early detection, prompt treatment, and systematic prevention of minor physical and mental conditions that later lead to hopeless work and social maladjustment; and in this ideal of prevention, a program more in keeping with modern medicine, modern social case work, and what modern personnel work ought to be, than the more or less opportunistic and unsatisfactory custom of giving relief to the sick and afflicted, and charity for the poor, decrepit, and helpless employees.

To be sure, the latter procedure has a tremendous sentimental appeal, and the former a cold, business-like approach. But the first, in the interest of business and of the individual himself, actually pays; and the second—does not.

To the employees themselves it demonstrates, through systematic raises in salaries and periodic checking up on

their production record, or attendance record, or health record and present physical condition, or interest in their job and attitude toward the work it involves, that the management is alive to the needs and possibilities of each employee; that no one's capacities or shortcomings are going to be lost sight of and ignored; and that a fair opportunity exists for each person to show what he is capable of doing; that every personnel facility in the store will be utilized for his development, but that his suitability for his job and his value to the organization will, without prejudice, be periodically checked up.

The full realization of the implications involved in this invariable check-up on the part of management has undoubtedly a tremendous effect on the morale of a department.

By no means least in value in such a survey is the plan for making available whatever essential information about himself and his work the individual employee should receive, and frankly orienting him to his own status, not through threats or hasty promises, not through ridicule or cajolery, not through the military methods of the disciplinarian or the attendance officer, but through a sincere, direct, and above-board effort to present understandingly the actual facts in each case, and secure the employee's conscious cooperation in a carefully thought-out plan for improving his production or attitude or adjustment to his job. And above all, in following up consistently to see that the effort is actually made and that the results desired are actually achieved in the way of work improvement.

Such reviews have their bearing on "training work" in that the results of the training given and its effectiveness in developing, placing, and adjusting new employees is brought out clearly in the discussion of the production, job satisfaction, and final status of each individual worker.

Such surveys of the employees and the jobs which they

fill are fundamental to any scientific employment technique whose basic methods are dependent on a knowledge of the type of workers who have succeeded and failed and the chief factors responsible for such.

Out of such a departmental survey should come an improved employment technique, suited to the selection of people especially fitted to do the work of that department—an employment technique constructed on the basis of known individual factors and qualities that make for success or failure at a given job. Our own attitude toward the employment question, as we have shown in our *Psychiatric Guide to Employment,* emphasizes an approach that is more comprehensive and inclusive than merely setting up a job test, or a battery of tests to pick applicants, a procedure that elicits only a small part of the applicant's personality or mental reactions, and brings into play only a few factors that have to do with his successful performance of his job.

Our own study of the causes of failure at work does not justify us in believing that the lack of special job ability plays such an important part in lay-off and separation from jobs, as many are inclined to believe. The same is true in analyzing the factors responsible for production. The broader personality issues, of interest in job, motivation of work, the degree of effort, application, work habits, attitude, purposive use of energy, initiative, health, etc., are the significant and basic questions to be considered. It is for this reason that our procedures in perfecting employment technique, through personnel surveys, cover a comprehensive investigation of the general bodily and personality, as well as intellectual, factors that influence and modify the special ability of the individual worker to perform his task. In short, such surveys include a well-rounded investigation into the physical and mental issues that determine what sort of people succeed or fail on jobs.

They bring into play all available information gathered through careful medical, psychiatric, and psychological studies.

Although workers and work units are continually under observation in relation to output, still the production of results is not always a measure of the health of a division, even where the production is good. In any group, some individuals may be producing more than others; some conditions of work may be fair makeshifts, but not really satisfactory; some work is being done which might be eliminated; personal relations between workers and supervisors may be strained; or any number of other conditions may exist below the surface of the situation as generally seen.

The department manager is of course interested in keeping his group working efficiently, and therefore in seeing that conditions are as good as possible. But, he usually has many groups under his supervision and has hundreds of general matters which engage his attention, so that he would have little time in which to make a detailed analysis of each unit under his control. He must, therefore, accept on faith the health of a productive unit. Even when he is definitely aware of a sore spot in a division, he must form his own conclusions as to its nature and take some expedient means to eliminate it. This often results in wasteful trial-and-error procedure, during which both the division and the executive suffer from lack of definite and concrete knowledge of all the factors involved in the immediate difficulty.

The value of an extra-departmental survey of work units and personnel is largely due, therefore, to its complete disinterestedness, its lack of complication by special production problems, its thoroughness, its scientific approach, and its special technique. The research group has nothing to gain either by discovering flaws or by finding

perfection. Its interest is wholly the discovery and development of those factors in jobs and personnel which will contribute most to the general welfare of the whole organization. Such a research group has the best possible opportunity to develop and maintain the proper perspective to guide its work. Since its job is not mainly one of reducing costs or increasing production or placing people, but, since it must necessarily include consideration of all these points as well as many others, a research group of this type has the opportunity to give enlightening information and insight into departmental problems.

Industrial organizations have always been interested in department studies where there has been some special difficulty to raise the question of a unit's value, and the type of study that has been made has differed widely according to the type and size of the organization, its facilities, the point of view of managers, and the like. In most cases, organizations have within them personnel departments, training departments, efficiency engineers, or some similar body which concerns itself generally with system, organization, and employees. Each one of these has a special and unique point of view in any study it undertakes. Perhaps this can best be shown by an illustration of the convergence of several such groups in one study.

There was a group of twenty-two dictaphone operators in our Central Correspondence Division. These girls were being paid an average of about twenty-five dollars per week and were turning out what was considered a fair amount of work. There was a shift made in the management of the department, and the new department head was somewhat dissatisfied with the work of this unit. He and the supervisor of this group tried several methods of increasing production by talking to the group, rotating work, etc., but nothing seemed to be effective. He then called in the Planning Department (efficiency or industrial

engineers) and asked them to make a study of the group in order to increase production. By making careful time and production studies the Planning Department was able to set a standard for output, and compensate for maintaining and exceeding the standard by an individual bonus. It was then decided to give more training to some dictators who were particularly hard to follow. This was done by the Training Department. The production was then increased, but many other difficulties were noted, such as complaints and dissatisfaction of workers, friction between them and the supervisor, etc. So that the question arose as to the advisability of a study of the people themselves and the jobs they were performing from a psychiatric and psychological viewpoint.

At this point, the psychiatric and psychological staff was called in to make a study of the problem and suggest means for its solution. It was found that the job was extremely tense and confining and that frequent rest periods would probably be effective in reducing fatigue. A series of schedules for work and rest periods were made up and tried out and the production curves studied for each period of trial. At the same time, careful observations on the job were made by the psychologist and examinations of the workers by the psychiatrist to discover evidence of fatigue and dissatisfaction. These scientific studies of the employees themselves formed the basis of a work and rest schedule which proved effective in reducing fatigue, as well as clarifying certain personnel issues relating to the suitability of certain given workers for their jobs. During the course of the study it was found that the supervision of the group was poor, both in its organization and in the type of person supervising. A change was recommended here which proved successful.

It is plain in the above illustration that any one of the regular personnel groups could have discovered and

remedied only a few of the problems involved. The Planning Department would seek to increase production through better work methods and increased compensation. The training group would improve training methods and give more time to teaching techniques of work. The department manager would hire and fire or raise and lower salaries according to his personal judgment. But the solution of the problems in this unit could have come only from an analysis of the job, and the personnel in accordance with psychological and psychiatric principles. And this must necessarily be done by individuals who have had special training along these lines and know thoroughly the inter-relation between jobs and people.

Methods Employed: For practical purposes the methods employed in conducting department surveys may be considered under three main headings: (1) The organization and operation of the department, (2) the job itself, (3) the personnel.

1. *The Department:*

As suggested in the foregoing pages, the ultimate aim of a comprehensive department survey lies in the improvement of its production and personnel. In order to accomplish this most effectively it is necessary for the investigator to have a thorough knowledge of all the circumstances in the department and on the job. The first approach, then, to the analysis of any job is the study of its functional and departmental setting. Then the organization, processes, and standards of the job must be studied; and, finally, the worker himself.

It is evident that jobs will differ widely in their demands on workers, as well as in their special functions. But there are some factors that are fairly common to all jobs, and some consideration should be given to each of these in

any job study. For practical use we have developed an outline investigation form which serves as a guide to department surveys. Similar lists have been suggested by Scott and Clothier,[1] Bingham and Freyd,[2] and many others. The following outline is one that has been found very helpful in many surveys of this nature:

Outline of Department and Job Study:

I. Study of department as a whole

A. General physical conditions

1. Actual layout of desks, partitions, windows, doors, etc. (Diagram)
2. Lighting
   Artificial or daylight
   (If artificial, what type? General overhead? Desk lamps?)
   Adequacy?
3. Ventilation and heat
   Direct fresh-air; ventilators, draughts, heat radiation, adequacy
4. Distraction—number of people moving about, confusion
5. Noise—operating machines, telephones, etc.

B. Supervision

1. Number of supervisors per unit
   Adequate? (Consider size of unit, number of individuals, area under supervision, and type of work done in unit)
2. Type of control exercised by supervisor
3. Adequate balance between quantity of work and number of workers.

[1] *Personnel Management.* Chicago, 1923.

[2] *Procedures in Employment Psychology.* Chicago, 1926. See also Tead and Metcalf, *Personnel Administration.* New York, 1926, Chapters XVII-XXI.

4. Method of assigning work
5. Method of correcting errors
6. Fitness of the acting supervisor for his job

C. The general health record of the department; frequency of special health problems, if any

D. The turnover in the division. Comparison with other divisions in the organization. Any special causes of turnover peculiar to the group

E. The attendance record of the department, compared with the rest of the organization

F. Functional relation of this department to other departments in the organization

G. General salary adjustment plan (Is there a regular salary review? Who attends it?)

H. Promotional chart of jobs within the department and any definite leads to jobs outside

II. Study of the job itself

A. The general nature of the work

B. Exact operations involved

C. Equipment—chairs, desks, machines, etc.

D. Proper organization of work. (Does it involve no trouble to the worker to get materials, prepare desks, etc.? How much of this is necessary?)

E. Any special means of keeping production and error records? Their use? Do they involve employees in superfluous detail work?

F. Any special bonus or payment plan in operation? If so, give details of its workings.

THE DEPARTMENT AS A WHOLE

Much of the data sought can be gathered in a few hours of observation, but some of it needs more careful study and the securing of information from more than one source. Those lines of inquiry referred to in our outline which have not been generally considered in department surveys are discussed in some detail below:

Supervision: The question of supervision is in many cases dependent on the layout of the department. In this connection it is necessary to know the number of people per unit of supervision, the area over which they are spread, and the general nature of the work being done. It is evident that a group of messengers between departments, or a unit of porters, need different supervision from a unit of individuals sitting at desks doing clerical work.

The method in which this supervision is carried on is another important factor. There are all sorts of supervisors, ranging from those who do part of the job themselves and are continually checking up on every detail in the work of their subordinates to those who are perfectly well satisfied as long as the unit shows a surface smoothness and is not complained of by outsiders. Between these extremes there is the ideal supervisor who is alert to all the business of her unit, but who regards her job as mainly one of supervising personnel and directing work. These differences in supervision are strongly reflected in the performance and attitude of the workers and are therefore an important consideration in any department survey.

Another factor dependent on intelligent supervision is the balance between quantity of work and the number of workers. Any increase in amount of work per unit means either an increased effort on the part of workers already employed or an additional working force. The solution of

this problem is directly under the control of the supervisor. Information as to the actual methods used in meeting this problem often throws much light on departmental and individual difficulties brought out in the course of other lines of inquiry.

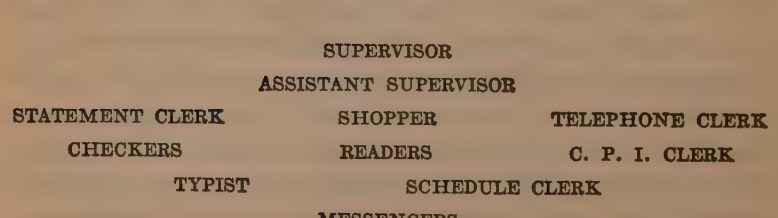
It is evident, also, that the relative value of individuals on the same job is greatly influenced by their relative opportunities for work. If work is of a standard routine nature this question does not arise. But in most jobs there are units doing work of the same class but varying in difficulty and complexity. It is particularly important, therefore, that the work be definitely assigned according to some set plan in order to avoid any unfairness in opportunity or in judging performance. The malassignment of work is itself often the cause of much friction between workers and supervisors. Another cause of friction is the correction of errors by scoldings and threats. Special penalties and bonuses have been tried with some success, but these do nothing constructive to insure stoppage of errors because they treat results instead of causes. On the other hand, the careful discussion with workers of special types of errors and the planning of specific means of avoiding such errors, not only eliminates waste, but helps to build more efficient personnel. Information as to the method actually in use is quite pertinent to the general problem of supervision. Of course, the most important factor in supervision is the supervisor herself. The data secured in regard to the methods of supervision are a good index to the supervisor's ability. Other indications of her fitness for the job are her own attitude in giving information, her behavior to her subordinates, their reaction to her instructions and orders, the general tone of the department, and the like; but the psychiatric examination of the supervisor is just as important as that of the rank and file and becomes part of the routine of our personnel surveys.

Functional Relations of Survey Department to Others: Knowledge of the relations between the department being surveyed and other groups in the organization is fundamental to a clear understanding of many problems and certainly to a thorough understanding of the jobs themselves—*i.e.*, no one unfamiliar with the functional relationship between selling merchandise and delivering it can be even partly successful in studying either of the jobs suggested.

General Salary Adjustment Plan: Most organizations have a fairly definite minimum wage scale for various jobs, but few of them have special systems for increasing salaries, discharging employees for failure to produce sufficient results, and the handling of similar matters. In places where such methods do exist, it is important to know in detail what they are. Bonuses and increased payment plans of one sort or another may be as harmful as they can be helpful when properly used. All information bearing on salary standards should be secured as fully and carefully as possible.

Promotional Chart of Department: The chart shown below indicates the type of diagram which should be made out for each department studied. This is helpful in pointing out lines of advancement within groups.

PROMOTIONAL CHART
MAIL ORDER DEPT.
B OF A



THE JOB ITSELF

With this groundwork of information the investigator is ready to make her analysis of the job. This must be done carefully and in great detail, and must be highly individualized. In many places job specifications are found in the Employment or Training Department. These are usually good starting-points, but they are rarely detailed enough to serve as a basis for definition of personnel qualifications, test construction, etc. For this reason the investigator must amplify such outlines to take in not only all the duties of the job, but also their relative importance, inter-relation, ease of operation, criteria of success, and many other considerations which will be discussed farther on.

The Nature of the Work: The first consideration is the nature of the work—*e.g.*, clerical, machine, contact. Under this head come such questions as whether the individual works alone or in a group; whether the group is composed of people doing the same type of work or are simply working in the same place; whether the worker is fairly independent in her work or is being continually observed and supervised; and other questions of a like nature.

Exact Operations Involved: After consideration of the general nature of the job, an analysis of its exact procedure must be made. Not enough can be said for the advantages of making this analysis very complete and full; of getting information on it from every possible source so that not a single item is overlooked. Jobs vary greatly in the type of information that can be secured, in its quality, and in the use to which it can be put. A simple description or outline of the duties of a merchandise marker gives a much better basis for analysis of personnel factors in the

employee than does a similar but even longer outline of the duties of a section manager. The following examples of this type of analysis will illustrate our meaning.

I. *Job—Merchandise-marker*

Description of job

The marker works in the marking sections of the Receiving Department, placing the price on all incoming merchandise. Sometimes she also checks the merchandise against the invoice for quantity, style, etc. She usually is assigned to marking goods for a definite department or departments, though she may be shifted around when her section is slow and another one busy.

The functions of the job are to

1. Carefully compare merchandise with vender's invoice, as to quantity and kind, and report missing or excess merchandise to the supervisor of the subdivision.
2. Get ready to mark merchandise by setting type squarely and quickly, fitting rolls of tags and threading them into the machine, or writing data legibly on the price tags, etc., as may be required for the particular type of marking to be used.
3. Mark each piece of merchandise with the selling price and other data required. (Some merchandise is marked by hand, as in the case of blankets, where the marker, using a pin ticket, has to press the ends of the pin through the blankets, flatten them back with her fingers, and close the ticket. Other merchandise may be marked by machine,

as with hosiery, where the marker places a box of hosiery on the platform of the machine, quickly positions a pair of stockings in the machine, presses the lever which pins the ticket into them; marks all pairs in the box, covers it, and drops the box into a truck. These are but two methods of marking).

II. *Section Manager*

Foreword to Training Manual

The purpose of this manual is to give you a summary of your position as connecting link between the customer and management. In this capacity you are intrusted not only with the responsibility of seeing that customers are as well served and satisfied as we would have them be, but also with the authority to make any adjustments the customer feels due to her. You are further responsible for the morale of your department and for the usefulness of the sales clerks by seeing that they be prompt, industrious, and well mannered. You will have to adjust every difficulty and transaction which is out of the ordinary, and you will be considered the source of information on every point relating to the store. Therefore, the order in which your duties as a section manager has been followed in this manual is not one of chronology, but rather one of service to the customers and to fellow employees. Therein lies your real job.

The Functions of the Job Are as Follows:

1. Service to customer

A. General information

1. Location of departments and merchandise

.....

5. Personal Shopping Bureau

B. Service controlled by house system

1. Bank checks
2. Other

.....

18. Invoice by request
19. Bill for collection

C. Depositor's account

1. Information to customers on advantages of D. A.
2. Signatures on taken purchases under $10
3. D. A. taken: Fictitious or marked "No funds"

D. Exchanges, refunds, order backs

1. Exchanges
   (a) Policy

   .....

   (f) At house
4. Deposits and notice to tube room

E. Complaints and adjustments

1. Complaints
2. Accidents
3. Annoyances
   (a) Change not returned from tube room

   .....

   (f) Short found on overgoods

2. Relations with sales clerks and merchandise checkers

A. Discipline
1. Weekly meetings
2. New sales clerks
.....
16. Blunder report
17. Demerit report

B. Assistance
1. Passes
(a) Late lunch
.....
(h) Shopping
.....
2. Allowances
.....
18. Memo. to M. C.
19. To transfer credit from one department to another

3. Section manager's responsibilities

A. To his department
1. Opening
.....
10. Mail orders

B. To the merchandise in his own department
1. Overgoods
.....
9. Inventory

Appendix

A. Emergencies
1. Fire drills
2. Fire stations
3. Accidents
4. Shoplifting

After analyzing these jobs in greater detail, it is found that while the simple routine marking job needs little more explanation as a basis for developing tests, setting up personnel qualifications, and the like, the section-manager job is so complex that this outline of duties is almost meaningless. The investigator must himself go over existing specifications and check them carefully against the actual job procedure in order to be sure that no pertinent factors have been omitted. This personal investigation is also necessary to discover the true relative values of the various job duties. No outline can sufficiently differentiate between minor details of performance and the major responsibilities in the carrying out of a job which varies in different departments.

All the findings should be noted very carefully, with full details as to importance of various features, method of functioning, materials needed, contacts necessary, and any other special items which may be found in particular jobs. The more full and comprehensive these notes are, the easier will the investigator find his later work in using them as a basis for developing criteria of success, tests for new employees and standards for salary increases.

Adequacy of Equipment and Work Organization: By the time he has finished his job analysis, the investigator is in a fair position to make some judgments as to the adequacy of equipment and job organization. Notes should be made on the existing conditions and on their fitness for the job. For example, it is obvious that if a clerical job involves telephoning for information and the telephone is several feet away from the worker's desk, there is much waste of time and energy. Other examples of poor adjustment between special physical equipment and work to be done are to be found in almost every preliminary job survey. Even more often than this is found the situation of individuals doing much puttering

about before actually settling down to the job in hand. Some of this is occasionally necessary, but careful analysis will point out many cases where it could be eliminated with resultant satisfaction to departments and to workers.

Production and Error Records—Standards of Success: The investigator working outside a manufacturing plant where work is measured by number of completed parts or garments, will encounter one of his biggest difficulties in finding records of individual achievement. In most cases department heads do not realize the necessity for having definite measures of individual production, and where quantity records are kept, quality (error) records are practically never available. Occasionally when some attempt has been made to stimulate production or interest by the establishment of bonus systems, posting of achievement charts, or other similar methods, there has been developed some type of production and error record. These are often not only inadequate for their purpose, but also clumsy and troublesome to keep. The findings of any such record, however, regardless of its adequacy, is helpful in forming a basis for the development of definite and objective criteria of job success. And this is one of the most valuable results of the job survey.

Special Bonus Plans: If there are any special plans for stimulating production, improving quality, or compensating for extra work, these schemes should be carefully studied for their effects on the workers in the group. Individual production curves over a period of time are often enlightening as to causes of fatigue, need for rest periods, or over-abundance of idle time. Complete information on all phases of these plans and careful analysis of any records available is basic to any fair estimate of their value or recommendation for revision.

Sources of Information: The factors which must be studied in a complete job analysis must be considered from

so many different aspects of the same situation that information about them must be taken from several different sources. Whenever possible, it is wise to prepare for a department survey by becoming acquainted with any descriptive or outline material available in the employment, training, or engineering departments. While such data are quite often valueless in the actual details of job performance (as illustrated above), it furnishes a background of information which serves as a starting-point for discussion with department heads. When such material is unobtainable the best starting-point is a general discussion with the department manager, the individual at the head of several related groups. This should always be the second step, regardless of the results of the first approach suggested.

In this preliminary talk with the department manager it is important to impress him indirectly with his need for the proposed survey. Some features of it will be entirely comprehensible to him; others will seem like merely a source of interest for the research group and of no practical value to his department. Since his support and whole-hearted cooperation are fundamental to the success of any survey, it is worth spending a good deal of time and effort in securing his interest and promise of help. Moreover, this discussion will open up to the investigator many of the sore spots in the division, many difficulties having their source in departmental policies, some clues to the influence of the man himself on his subordinates, and many other matters which may vary greatly from one group to another.

Another source of general information will be found in the management group and its related departments. This must be secured indirectly, of course, but in the course of general discussion of organization problems much light is often thrown on causes of friction between depart-

ments; achievements of survey departments; and the attitude of the organization toward the department under survey. While too much time should not be given to such an inquiry, a few hours often prove fruitful.

When all the general sources have been tapped, the real study may begin. There are three main sources of information: (1) unit supervisors; (2) workers themselves; (3) investigator's actual experience on the job. Since all of these are fairly important and yield different types of material, we shall take them up separately in the following discussion.

The unit supervisor will give information as to the manner in which work is distributed, the pressure of work, the reliance of this unit on others and their reliance on it, as a source of work, as a check-up, or merely as a related group the relations between the supervisors and the workers, and many similar questions. Here also can be discovered the degree to which the workers on the job being studied are free agents, responsible for their own work, and to what extent they are limited by their jobs and by organization policies and practices of various kinds. Since the supervisor usually does some training of new employees, much light can be thrown on the adequacy of the existing training and employment methods.

This contact with the supervisor, as well as furnishing valuable data for further inquiry, forms an excellent entry into the department. Workers get accustomed to the name and the appearance of the investigator and gain confidence in him by reason of his apparent friendliness with a supervisor whom they respect. Thus they are more ready to accept him and treat him naturally than if he seemed like a complete stranger whom they were seeing for the first time.

In meeting the workers themselves and discussing their jobs with them, it is essential to gain their confidence

and cooperation in order to secure adequate information from them. It is a good plan to have the workers taken into confidence to some degree, at least, as to the nature and purpose of the study. It is often helpful to have the department manager introduce the investigator to the group and make a preliminary statement of the purposes of the survey, such as development of better salary standards, discovery of possible aids to make work easier, discovery of qualifications for employment by taking them as standards. If such an approach is used and the investigator is careful to assume the rôle of student and untaught questioner, he will find employees in most cases happy and eager to exhibit their own ability and importance by telling about their work in very minute detail. In addition, it will be found worth while to spend much time in pure observation of the worker's performance and behavior on the job. In this way can be noted not only job procedures, but the reactions of employees to their jobs, the adequacy of supervision, symptoms of fatigue and strain, etc.

Where it is possible, the investigator will find it helpful actually to work at the job himself, especially in routine jobs where observation and discussion seldom point out fine shades of differences in performance. Of course, in skilled trades or in highly complex jobs, this is not practical. But these tasks, on the other hand, require the performance of such special duties that their analysis is not difficult to make even by pure observation. A compromise with actual working on the job is often possible and effective. This would be the "trailing" of an employee, following her activities step by step all day, with continual explanation by her of what she was doing and the reason for it. Helping out with the work of the group, even in minor tasks, is another successful means of gathering facts and establishing confidence.

The type of method employed and the relative time given to each will, of course, vary greatly in accordance with the job being studied. The general principle, however, of securing all the facts pertaining to the situation will be followed in any careful survey.

The Personnel: A systematic grading up of the personnel of the department is the next step. This is accomplished through an individual medical, psychological, and psychiatric examination of each employee.

We are interested not only in finding out what each individual worker accomplishes at his work in terms of measurable and comparable production criteria and in terms of his general job behavior and attitude, but we analyze carefully his store and attendance record and his hospital or health record, and finally his physical condition and make-up, his general intelligence, special abilities and disabilities, his habits and personality characteristics, together with an inquiry into his home background.

In short, our aim is to secure in the case of each employee a thorough investigation of the physical, mental, and social factors in his case, with a view to outlining his particular capacities and handicaps, his adaptabilities and possibilities; to explaining his success or failure and to giving a prognosis as to future value and placement. Such a study provides objective and unprejudiced information on the basis of which management may act intelligently and fairly in reviewing his case, for a salary increase or a lay-off, for a transfer, a promotion, or a demotion.

Only through such a study can all the essential facts be brought out and fairly dealt with. The forms used—the physical examination, the social history, the personality study, the intelligence and special ability investigation, the job behavior inquiry—are included in the appendix.

All of this data relating to each individual employee is gathered into his "case record," and the psychiatrist, after analyzing the fundamental facts, prepares a report which is presented under the following headings: (1) physical findings; (2) mental findings; (3) store career and job behavior; (4) social history; (5) conclusions and recommendations. It is in the conclusions and recommendations that an evaluation of all the facts in their relation to the individual worker's personnel value and suitable job placement, or proposed salary increase, or further training, or medical or psychiatric treatment, transfer, suspension, or lay-off is considered in detail with definite recommendation.

Presentation of Material: The entire body of material secured from the above study of the personnel, the job, and the department is now properly integrated and gathered into a comprehensive report with recommendations. This report seeks to evaluate all important matters relating to production and personnel in the department and to bring out departmental and job conditions that have affected unfavorably the work of certain employees, as well as to discuss from a causal and treatment viewpoint those employees who have hampered the output and morale of the department. It gives suggestions regarding the modification of particular job situations and outlines on the basis of known abilities and disabilities, an individual personnel plan for each worker.

We are now in a position to intelligently discuss at salary review and personnel meetings all the essential facts bearing on a given department's problems, as well as particular workers in the department.

These personnel meetings are attended by representatives of the general manager's office, the Training Department, Employment and Planning Departments, and the manager of the particular department under discussion.

Data from all these sources is now discussed and compared with facts gathered in the survey, and a complete review of each job and each worker in the light of full and accurate information is secured. The hasty biased opinions and inadequate generalizations common to personnel meetings where half a dozen departments are ground out in one afternoon, now give way to an unprejudiced and judicial consideration of factual material painstakingly and scientifically gathered. It is possible now to feel that a square deal can be given each individual employee in the light of true facts, and that his best interests as well as those of the organization can be fully considered.

Furthermore, management is placed in a particularly favorable position for evaluating the functioning of its personnel units; inasmuch as it can review critically the effectiveness of these facilities and the methods followed in employing, training, and placing workers in this department.

Products of a Survey: The results of department surveys may be briefly discussed under the following headings:

1. Modification of job and departmental conditions that have affected unfavorably the worker's output, or his work ability, his mental attitude, his physical and mental health, etc.
2. An individual personnel program for each worker.
3. Discovery of problem employees and their treatment, adjustment, transfer, or lay-off.
4. Discovery of promotional material.
5. Reorganization of employment procedure.
6. Improvement in Training.

Modifications in Jobs and Job Environment: As has already been indicated, there are so many possible sources of difficulty in any department that a careful study and

analysis is required to discover the real roots of any weakness noted. Few bad spots fail to poison many branches of the job environment and organization. The result is that when a survey reveals any really serious disorder, three or four minor ones are likely to be found in the same place, so that the means taken for eliminating the cause of difficulty must also aim at the correction of the evils which have come in its wake.

The outline suggested for use in department surveys gives an adequate summary of the types of things which may be found wanting. Our problem here is the solution of the difficulties discovered. Of course, this will vary greatly according to the type of job, the type of department, the nature of the department head, the season of the year, the amount of modification needed, the cost of such modification, and similar factors. In some cases the recommendation may mean simply a slight change in layout, the shifting of a few desks to facilitate supervision; in others, a complete analysis of some procedures in routing work throughout the organization or some general system which will involve many months of costly study. Perhaps the clearest way of pointing out some of the more serious difficulties will be to cite some examples of their discovery and solution.

1. *From Survey of X Department:*

> In this department, even before the survey was started, it was evident that the main difficulty was in supervision. But there was no thought that the extent of the problem was wider than a few inadequacies in work placement and perhaps a slight change in the handling of one or two minor jobs. A careful survey was made, revealing the following:
>
> (a) Inadequate supervision due to viewpoint and personality of the supervisor himself

(b) Lack of any criteria of individual achievement
(c) Lack of coordination between groups
(d) Waste of time and personnel in job-handling
(e) Inadequate personnel in six jobs

As a result, the following recommendations were made:

(a) Change in supervisor
(b) Change in layout
(c) Creation of a new job
(d) Replacement of six workers who were inadequate
(e) Promotion of three employees who were capable
(f) Change in job procedure in three jobs
(g) Establishment of records of production and errors
(h) Establishment of standards of production

2. *From Survey of XX Department:*

The group to be surveyed this time happened to be supervisors themselves. They were directly under a manager of the organization and supervised the work of messengers on various floors. When a salary review was held to consider the messengers, the management representatives at the meeting were so struck by the inadequacy of the supervisors' judgments and outlook that they requested that a study be made of them and of their jobs. This was done, and the following criticisms were made as a result:

(a) Supervisors' lack of proper attitude toward subordinates and responsibilities of job
(b) Lack of confidence in assistants
(c) Overabundance and duplication of clerical work
(d) Lack of written floor or desk plans giving location of workers
(e) Lack of recorded and definite knowledge of daily flow of business
(f) Lack of analytical attitude toward their own work and that of their subordinates
(g) Lack of objective criteria of success either in their own work or in that of their subordinates
(h) Inadequate individuals on the job

On the basis of these criticisms, the following suggestions were made:

(a) Improvement in personnel of both supervisors and their assistants
(b) Delegation of some of the present clerical work of the supervisors to their assistants
(c) A study of the messengers' jobs in relation to flow of work, quantity of supplies needed, etc.
(d) A reorganization of the entire job after a complete study and detailed analysis of the systems and interdepartmental functions involved.

3. From a Survey of XXX Department:

This group of people also had some supervisory duties, but their main job was contact with persons outside the organization and the making of adjustments and decisions. Among these employees the greatest difficulties appeared to be as follows:

(a) Organization of job
(b) General attitude of employees and others toward job
(c) Lack of training in essential features of job
(d) Vagueness of position in organization
(e) Lack of sufficient authority to make decisions effective
(f) Inadequate classification of job levels

As a result of the survey, the following recommendations were made:

(a) Delegation of some clerical duties to another unit
(b) Handling of one type of work through other channels
(c) Modification of training program to provide training in specific job duties
(d) Definition of individual's position in the job
(e) Raising of the "tone" of the department by vesting more authority and responsibility in individuals on the job
(f) Reclassification of job criteria to yield more adequate classification of jobs

From the examples given above, it is evident that the problem of presenting the findings and recommendations is no small one. This must always be done in such a manner that the department manager will be happy to hear the report and not be personally affronted by it. If in the course of the study the investigator has been able to establish confidence and faith in the survey program, it is often possible to make the department manager feel that the investigator is really, after all, only doing a little piece of a big job which he himself is directing. As a matter of fact, this is to some degree true. An alert executive realizes that methods change with the times and that, while he can attend to his own job, he can hardly expect to know all the new developments in other lines. For this reason we sometimes find executives themselves calling on a research group to conduct just such a survey and uncover just such difficulties as outlined above. For instance, the superintendent of our Cashiering Department asked us to study the tube rooms with regard to the effects of noise, ventilation, pressure of work, etc., in producing fatigue, and to study the effects of fatigue, talking among workers, etc., in producing error-making.

But the making of recommendations is by no means the end of the task. Too often have months been spent in research and elaborate schemes for improvement been recommended, only to have them buried among the "nice things" the department may do some day. For this reason it is important that the investigator keep a close follow-up on all the improvements and changes suggested. In organizations where the same group does the studying and the recommending and the changing, this problem takes care of itself. But in most large organizations the groups are separated and only work together on specific problems. The coordination of their activities is there-

fore essential to the success of any plan for change in department layout or job procedure.

An Individual Personnel Program for Each Employee: As previously indicated under methods, we have given much time and study during the survey to grading up the personnel of the department. Each employee has been carefully examined and his job and production possibilities thoroughly evaluated; his particular work problem, his chances for future development, his medical, social training and other needs; salary increase, promotion, transfer, and the like are taken up in detail in the recommendations on his particular case.

In a certain department surveyed there were 122 employees. We found, in going over our recommendations in these cases, that we regarded 74 employees as well suited for their jobs and properly placed. In these cases salary adjustments were recommended, further training in certain instances, medical treatment in some cases, and psychiatric contact in a very few mild personality problems. We found 26 employees who were good personnel risks, but not properly placed as to job abilities and interest, in whose cases we recommended transfer to clerical and other work. There were 7 individuals who, because of such serious physical and mental handicaps, we recommended for lay-off. Thirteen individuals were very promising material, and we recommended promotions to supervisory and junior executive jobs. Two employees were incapacitated for work, had been employed by the organization over a great many years, and we recommended pensions.

Discovery of Problem Employees: In every survey, it has been our experience that problem employees in a much larger proportion of cases than was anticipated have been found. To be sure, wherever the problem manifested itself in terms of production, or of attendance, or

of difficulties in relationship with other workers, the department head was quite aware of the existence of what he termed his "borderline employees." But in many cases, personality disorders with faulty and unhealthy compensations, fatigue, job dissatisfaction, special disabilities in relation to work performance, physical ill-health and serious home problems, were entirely unrecognized, either by department head or the personnel agencies, inasmuch as production, attendance, and the like were unaffected.

One of the great advantages of a personnel survey is in the discovery of these potential lay-offs and resignations—with the institution of some suitable treatment or adjustment program in the case of each employee. A great many cases need close psychiatric follow-up and contact of the nature mentioned in the chapter devoted to "Work Failures, Their Study and Treatment." Many cases need medical supervision; some need social service in their homes; while a very limited number need specialized training procedures.

In a certain department where there were 121 employees, we found 30 per cent of the personnel to be definite "problem cases." Twenty individuals had personality disorders, more or less marked, and were not making satisfactory adjustments in their emotional life. All of these needed psychiatric treatment. Seven cases had too low intelligence to do the work they were in satisfactorily, and had to be transferred to other and simpler work, or to be laid off. One individual was laboring at the time under a serious home problem that was causing daydreaming which brought in its wake errors and shorts. There were 8 individuals with specialized defects in certain abilities required for the job, such as speed, or motor dexterity, or accuracy, and the like.

Eleven cases out of the total group of problem employees

were what might be termed simple job maladjustment problems. That is, they were good enough as personnel risks, but were unsuited for the particular job that they were in, and were low in production and high in error-making, due to the fact that they had been misplaced at work. Six of these cases showed specialized defects in motor dexterity, speed, and accuracy; while 5 had personalities suited to dealing with people rather than with figures and things (these 5 cases showed too much tendency to talk to their neighbors and interest themselves in people, rather than in handling carriers). We recommended transfer of these 5 individuals to sales, inasmuch as they all had good "sales personalities." Of the other 6 cases, we recommended that 2 be transferred to clerical work, 2 to the restaurant, 1 to the detective department, and 1 to the job of merchandise checker. All of these individuals turned out to be satisfactory workers.

In the cases of 11 problem workers, we found such serious evidence of constitutional defects and disabilities —of a nature that did not prove responsive to treatment —that we were compelled, after a period of attempted adjustment, to recommend lay-off. Three of these were paranoid personalities—individuals who were unable to get along with others in the department, resented authority, were suspicious, had ideas of unfair treatment, "never got a square deal," and had absolutely no insight into their problems. Their effect on the morale of the department was so bad as to necessitate lay-off. There were 3 cases of depressed personality, whose constant tendency to mental reverie so affected their accuracy in work as to produce large shorts. There were 2 cases who were chronic psycho-neurotics, who suffered from outstanding illness complexes, were chronic users of the hospital, were serious attendance problems, had no insight into their condition, were not responsive to treatment, and could not well be

imposed on any other department. There were 3 cases of feeblemindedness, whose intelligence was not only too low for this particular job, but whose personalities made them poor personal risks.

All of these 11 cases were in the long run recommended for lay-off. There were 14 employees who seemed to have possibilities for adjustment right within their department. They all had reasonably good special ability for the job in question, and presented, principally, personality problems, with some physical disabilities. We recommended retention of all of these 14 cases within the department under a close-treatment program. They were kept in close touch with for several months, and within the year that we were handling this department 35 additional problem cases were referred to us for treatment, making, all told, 49 treatment cases on whom we undertook psychiatric work. Our follow-up at the end of the year showed that in 85 per cent of the cases the problems presented (error-making, daydreaming, attendance, and other disciplinary problems) had cleared up.

Promotional Cases: There is a great advantage in filling the better jobs of an organization, particularly the supervisory and executive positions, from the rank and file of the personnel of the organization, whenever properly equipped candidates are available. The firm has already had an opportunity to try out the particular individual and determine those vital questions of loyalty, reliability, industry, and performance. As a consequence, the risk is not so great as is involved in taking on an entirely unknown quantity. The expense in employment and training is saved, and the chances of turnover have proven to be less.

Then there is the matter of maintaining the morale of the force, and the stimulating effect on the employees

themselves in realizing that their efforts will be rewarded through proper promotion.

In every department where psychiatric and psychological surveys have been undertaken, latent talent has been discovered, and promotional material has been provided for the better jobs of the store.

In one department with more than 100 employees, we found 13 workers who were promising material. Several of them were soon promoted to supervisory jobs.

Improvement of Employment Procedure: Psychiatric and psychological studies of good and poor workers in a department enable us to determine what are the qualities common to the successful employees—the individual factors necessary to satisfactory job performance. Out of such studies grows an entirely new and more suitable employment procedure. A procedure built up on the basis of a definite knowledge of personnel requirements.

This is one of the routine products of a department survey, and when put into practical use by trained interviewers, results in lowered turnover and increased production.

Employment procedure previously developed on an empirical basis now takes on a scientific aspect in that it is constructed out of positive findings about jobs and the people who perform them; in that it has as its foundation carefully prepared job specifications and personnel qualifications.

In addition to putting the interviewing technique on a more purposeful and effective basis, there have been developed psychological tests during the survey that furnish the interviewer a measure of certain abilities involved in the job performance.

While much information of a medical nature and of value to the examining physician doing employment work

comes from the survey data, bearing upon the importance of good vision, and hearing, physical strength and endurance, etc., for the particular job in question as well as whether the job is predominantly a sitting or standing or walking or lifting one, we need not discuss such matters in any detail here; but will go into some detail regarding the job specifications, personnel qualifications, and psychological job tests.

Of course it is assumed that we have a trained employment interviewer to start with—one who has had a psychiatric background—who understands how to secure an acceptable social history, conduct a personality study, and evaluate the ratings from the psychological examination.

Job Specifications and Personnel Qualifications: Out of the mass of information gathered in relation to the job and personnel of the survey group come definite clues to the building of job specifications and personnel qualifications for use in employment, transfer, and promotion. These outlines are given to the persons who do the placement so that they have a definite knowledge of the job, its environment, and the type of people who are especially fitted to perform the task successfully.

Job Specifications: The job specifications can ordinarily be built from the data collected during the first part of the survey, dealing with the department study and job analysis. These specifications should include the following data: job name, department, number on job, job symbol, short summary of job elements, simple description of general job duties, and a descriptive outline of the functions of the job. If there are any special bonus plans in operation, or any definite scheme for salary increases, or any particular promotional policies in the department, these should be included also. A good addition to this

outline for the interviewer is a simple narrative account of the job and the work-place, together with a picture of some people actually at work on the job; this to be given to the prospective employee to read over while she is waiting to be interviewed. In this way both the interviewer and the applicant have a good idea of the job to be filled and can carry on a live interview which will bear definitely on the problem of the work placement of the applicant. Since the question of salary is a variable fixed by the current circumstances, the definite salary levels cannot be included in the job specification, except where minimum wage standards have been set and used over a long enough period of time to make them fairly constant. In other cases such information will have to be supplied directly by the interviewer in each case.

Personnel Qualifications: The discovery of the outstanding factors contributing toward success in work depends very largely on the completeness and care with which the jobs and employees have been studied, and on the existence of reliable criteria of achievement on the job. Where such conditions exist and the number of workers on the job is large enough, statistical analysis of the case material in its relation to the achievement criterion is the best means of pointing out definite trends in individual make-up of successful and unsuccessful workers.

It is evident, however, that in almost any organization the study of workers on the job will yield a proportionately higher number of good workers than of poor ones, and that where ratings are used as criteria this will be particularly true. Any trends which appear to be significant will have to be very carefully checked, therefore, by the employment and follow-up of individuals selected on that basis.

An important consideration in building job specifications and personnel qualifications is the constant keep-

ing in mind of the purpose for which these are being prepared.

The usual procedure in employment must be a hurried affair, and tools for use there must be easy to handle and right to the point. Outlines are usually the most effective way to present such material, especially if it is to be used with the desired frequency. In making these outlines the words used should be as specific and descriptive as possible. It is also important that in outlining personality, particularly, care is taken to express them in terms of behavior patterns which can be evaluated during the interview. Otherwise the outline is likely to be full of listed traits which might be helpful but which could never be discovered in a fifteen-minute interview. In the *Psychiatric Guide for Employment* we have disclosed methods of securing this information in some detail.

There are some traits, of course, which are extremely important in individual make-up which cannot be definitely determined during a short interview. Many of these, however, are reflected to some degree in the past experience of an individual and in his reaction to them. An interviewer who has had some psychiatric training can derive considerable information about the personality make-up of an applicant simply from his recital of his experience and his attitude toward its events. These indirect gleanings are frequently more significant than those which appear directly on the surface.

The following illustration of a typical job specification and personnel qualification form was based on a study of several hundred cashiers. These were all given a complete psychiatric and psychological examination, as well as a thorough physical examination at the time of our study. The case material was then analyzed and treated statistically and checked with production and error records as well as with department ratings.

Job Specification:

	Symbols
Job Name—Cashier. No. on Job—103	TTF
Department—Cashiering. No. in Department 130	TTP
Division—Tube room. No. in Division—45	TTM

Description of Job: The cashier sits in a central cashiering division where the carriers containing the sales checks and money drop from the pneumatic tubes which come from the selling floors, on to a moving belt which brings the carriers to her. The cashier is responsible for the money which she handles, which necessitates her making correct change and making a nightly balance of her accounts of money received and that turned in to the chief cashier's office.

The Functions of the Job Are to

1. Grasp carriers from the belt quickly (occasionally in the midst of working on another one).
2. Twist the carrier open, pull out the sales check and money, and check the figuring on the sales check. Also check the "amount of money received" by counting the money received while thrusting the bills and sliding the coins into the proper tills.
3. Make change accurately.
4. Stamp and mark sales check to indicate proper handling.

The cashier is paid ten cents for each error or omission she finds on a sales check. She is also paid a bonus for all the carriers she can handle above the standard set. In order to do this or even keep up to standard at all times, she will have to work rapidly and under high pressure during busy periods of the day, and in noisy surroundings.

Personnel Qualifications:

Age—17-25, preferably 20-25 (Part time—Married women—25-30)	*Personality* *General*

Sex—Female
Schooling—Grammar - school graduate, preferred

Physical Conditions

Good eyesight
Vigorous and healthy
No conditions of hands, arms, or wrists which might handicap movement
Freedom from debilitating condition or tendency to fatigue

Special Abilities

Speed—Good or fair
Accuracy—Good
Arithmetic—Good or fair
Motor dexterity—Good

Intelligence

I. Q.—90-100 preferable; 80-89, acceptable; 110 and over not advisable except where job does not conflict with social status or mental attitude

Alert
Stable
Well integrated
Good attitude
Interest in job

Special

Pleasant and cooperative
Active
Slightly introverted
Free from unhappy social conditions
Liking for responsibility of handling money
Enjoys working alone
Good concentration of attention
Ability to work under pressure without confusion
Adaptable to noise in work-place

Job Description (for applicant)
(picture of cashiers at work in tube room)

These are pictures of the tube room where most of the cashiers work. Notice the moving belt which carries to each cashier the money and sales check from the selling floor.

Being a cashier at —— means making change in a tube room away from the selling floor. The carriers with the money and check drop from a tube at the front of the room on the moving belt, which brings them to you. No two carriers are alike; they come from different clerks and different departments and have different amounts of money in them. Each carrier is alike in one thing—each carrier means a customer waiting, and therefore means that the cashier must work very quickly in order to make that wait as short as possible. The cashier must work carefully, too, for she is responsible for all the mistakes she makes and all the money she handles.

The cashier works in a tube room with about thirty other girls. The job does not always seem the same because there are rush periods and slack ones. The desks are arranged in rows and seats are changed every day. As the carrier comes along the moving belt, the cashier picks it up. Then she twists it open and pulls out the money and the sales check. Then there is marking, tearing and stamping to do. After that the change is counted very quickly. At first the noise of the tube room is troublesome, but the cashier soon becomes accustomed to this.

Your salary will be increased whenever you are able to do more work. In addition you will be given extra money whenever you handle an extra number of carriers or detect errors on sales checks. You will have the opportunity to fit yourself for better jobs in the store and can work up to them in time.

The illustration given above is only one example of several dozen which have been worked out and are now in daily use. While these by no means serve as substitutes for the interviewer's personal knowledge of the job situation and its needs, in a place where each interviewer hires hundreds of people a year for different types of work, such a guide as this is an excellent means for codifying employment standards and refreshing the interviewer's mind as she approaches the filling of each job. More than

that, it gives the department manager a feeling of security in the people sent to him by the employment office because he knows that they have been selected on the basis of their definite fitness for the job he needs filled, according to an outline which he has seen and approved.

Development of Tests for Employment: In addition to the outline of job duties and personnel requirements, a very important outcome of the survey is the selection and development of test measures to give definite information as to the degree of an individual's aptitudes or abilities in special fields. Under the head of "special abilities" on the personnel qualifications form will be found listed those particular capacities which have been found measurable among all the traits necessary for success in any given job. The development of adequate tests for these qualities is highly important as an aid to the employment interviewer.

Perhaps the method of developing such tests may be best explained by an illustration of the procedure used in developing tests for the cashiering job referred to above. The special abilities needed to perform the task successfully were determined after a careful analysis of the job. Diagrams of work procedure and motion studies on individual cashiers were carefully analyzed. Days were spent in the tube rooms watching the cashiers at work. These investigations resulted in the decision that the measurable qualities most necessary for success in cashiering were limited intelligence, speed of perception and handling, accuracy in checking and figuring, ability to do the arithmetic necessary for figuring sales checks and making change, and dexterity in handling carriers, sales checks, and coins.

The following battery of tests was tentatively decided upon, and was given to all of the full-time cashiers in the organization:

1. Otis tests of intelligence
2. Arithmetic test
3. Code test for learning
4. Number cancellation test—accuracy and speed
5. Similarities—difference test—accuracy and speed
6. Number-finding test—speed
7. Card-sorting test—dexterity
8. Peg test—dexterity
9. Cashier till test—trade test

The tests were correlated with department criteria of individual performance. The results obtained from the application of this battery of tests to full-time cashiers were sufficiently favorable to lead us to decide to try out the same battery of tests on all applicants for the job of cashiering for six months.

Our findings in the tests were then checked according to their value as composite pictures of behavior rather than as single measuring sticks of "cashiering ability." The goal sought was a test battery which would aid the interviewer in judging relative speed or accuracy or mental alertness or motor dexterity, rather than a test correlated with cashiering ability as a whole. These results may be divided into two groups: (1) relation of test ratings to department ratings; (2) correlation of individual test scores with quantitative department measures. The relation of test ratings to department ratings were as follows:

(1) Most of the successful cashiers had I. Q.'s ranging from 80 to 109, dull average and average adult intelligence.
(2) Ratings of speed on tests agreed with department ratings of speed in 85 per cent of those rated "good," and 60 per cent in those rated "poor."
(3) Ratings of accuracy agreed in about 80 per cent to 90 per cent of the cases.
(4) Dexterity ratings agreed in 65 per cent of the cases.

The correlation of individual tests with time studies and error records were equally significant. The trade test mentioned under No. 9 has been particularly studied, and further discussion of it will be found under the chapter on psychological tests in business.

These tests had, therefore, proved their validity as measures of the special abilities needed in cashiering. As a result they form a part of the procedure in employment of new cashiers. The psychologist who gives these tests sends to the employment interviewers a record of each applicant's performance, as shown below:

Test Ratings	*Other Observations*
Intelligence quotient	Grasp of instructions .....
Arithmetic	Method of work .....
Accuracy	Attention .....
Speed	etc. .....
Dexterity	etc. .....

Such results as these are useful and necessary to further development of definite employment procedures. The selection and standardization of special ability tests are among the most valuable products of the survey.

Incorporation of New Procedure into the Employment Technique: The next step consists in making available to the interviewer and incorporating into his routine selection technique the new methods and procedures developed. This is not so simple as it at first seems; for mere testing tools and personnel qualifications will not of themselves work out a solution of employment difficulties. This is best illustrated by a particular example.

In a given department careful work over a period of a year had been done in conducting a survey. Out of this had come a particularly serviceable battery of employment tests and explicit and clear-cut personnel qualifications.

These the research group tried out with considerable success (the tests having a high correlation with performance ratings), for a period of several months doing the employment work themselves.

The new procedure was now placed in the hands of the employment interviewer, who had the aid of a psychological testing service to furnish ratings of the special abilities of applicants for the job in question, and at the end of six months a check-up on the results achieved in employing the right sort of personnel was made with the following findings. Sixty-three new people were employed during the six months' period, and only 17 of them remained in the department at the end of the period; 2 of the 17 had been placed on other and less complex work. Only 7 out of the 15 new employees remaining on this job were considered by the department head as satisfactory. An analysis of the case record of one of the unsatisfactory new employees still remaining on the job at the time of the check-up showed the following facts.

"She was rated poor in her speed tests; only fair in accuracy tests; showed a tendency to error-making; was poor in her arithmetic tests; poor in learning tests; and only fair in motor dexterity. She showed a marked personality disorder; was seclusive, repressed, peculiar, and shut-in. The girl's mother is an invalid, and the girl herself has to do the housework at home, from which she suffers fatigue, which affects her efficiency in her work as cashier. She is not at all suited for cashiering."

We had previously pointed out in our study of this job and its personnel the great importance of personality factors in causing failure. (This was the cashiering job.)

We had called special attention to those suffering from disturbances in their emotional lives; to the group with personality disorders, the daydreamers, the nervous, the

difficult types, and how unfitted they were for this sort of work, and how likely error-making, shorts, and irregular production would follow. We had emphasized certain physical conditions and had set definite age, schooling, and other limitations, showing in our report tables the frequency of certain essential factors in causing failure.

Above all had we called attention to the need for a background of clinical training on the part of the interviewer to enable her to utilize the criteria placed in her hands.

We now found, after our check-up, just the thing we had feared. Too much reliance was placed by the interviewer on high scores received on the psychological tests; the better the test score, the less the emphasis was placed on the interview, whereas we had always emphasized the facts gleaned from the interview as being more important than the results of the tests.

Our conclusion was that the interviewer was lacking in a sufficient background of clinical and psychiatric knowledge to interpret properly all the facts in the case and to conduct the sort of an interview that would rule out the varied problems which could not in any sense be evaluated by a testing technique.

As far as the psychological tests themselves were concerned, they did well what they were expected to do. They furnished information in regard to certain mental processes of importance in performing the actual work of a cashier. But no tests can measure the total personality.

It was felt that a psychiatrically trained agent would get better results, so one of the psychiatric social workers in our own office conducted the employment of cashiers for a corresponding six months the following year, and her results as compared with those of the interviewer may be seen as follows:

	Year	No. Entering tube room	Resignations	Lay-Offs	Transfer	Dropped	Total separations	Number of cashiers left in tube room
Employment interviewer's results	Jan.-July, 1926	63	24	14	3	5	46	15 2 switchers
Psychiatric social worker's results	Jan.-July, 1927	29	5	1	1	2	9	20

It can be seen from the above table that not one-half of the number of cashiers had to be employed during the 1927 period as were required during the 1926 period. This was not only due to more skillful selection, but to the close follow-up and adjustment of workers on their job by the psychiatric worker who employed them. Three times as many satisfactory cashiers were left at the end of the demonstration period as remained in the tube room following the period the employment interviewer conducted the employment work. Of course, the saving from the standpoint of training was considerable.

The lesson learned here was that our interviewers should have some psychiatric or clinical training, and this was actually undertaken. Each interviewer over a period of months was given a very careful "case training." Our results from this have been very satisfactory. Taking the same department as an illustration, we find that from Jan. to July, 1928, the employment interviewer had to employ only 12 cashiers, 8 of whom at the end of the six months' period were still on the job and rated high as satisfactory cashiers.

This all means that in addition to serviceable job tests, job specifications, and personnel qualifications, we must have an interviewer of adequate training and diagnostic ability. This latter viewpoint is the keynote to our own philosophy of employment.

Improvement in Training: Training in mercantile and industrial life implies a program for imparting to workers information concerning the store's system and a knowledge of their jobs, together with some drilling in their performance. But it does not include much knowledge on the part of the teacher of the effect of the job on the individual worker; of its influence on his mental attitude, his endurance, his habits, work ability, and health. Nor does it ordinarily conceive of its technique as in any way being dependent on a full knowledge of the worker's attitude, abilities, and disabilities; her adaptabilities and possibilities; and yet these matters are fundamental to a purposeful job training plan that would get the greatest possible results out of each employee.

It is for this reason that we have listed "improvement in training" as one of the outstanding benefits resulting from the type of survey we are discussing; for detailed personnel information about every employee in the department is placed in the hands of the training representative, as well as all the comprehensive knowledge of the job above referred to. Also the training worker, the divisional teacher, now has in the case of every new employee prior to training a report of the clinical and psychological findings in his or her case—the intelligence quotient, special aptitudes and ability ratings, schooling, personality data, etc. Suiting now her educational methods to the capacities and disabilities of her pupil, she is in a position to individualize her technique in a way that old-time group methods of training scarcely ever dreamed.

Re-education of Department Manager: Not the least in value may be considered the new insight gained by the department manager and his supervisors into personnel problems and into the mental-hygiene principles underlying successful management of people; a new knowledge of workers as well as rules and regulations; of work motiva-

tion from the standpoint of the individual employee as well as production from the standpoint of the department; of human factors underlying output as well as job criteria of work achievement; of the emotional satisfaction or dissatisfaction a job may offer the worker as well as the financial return to both employee and employer. Thus the education of the department manager and his executive staff into the causes of work success and failure may profitably be rated as one of the chief goals of a survey.

Conclusion: We have in the preceding pages discussed a routine department survey, its general value, the methods employed; and the results ordinarily achieved.

It must not be thought that one survey will solve all future department problems. Similar reviews of a much less intense nature will be required at least annually (preferably twice yearly) if management is to function efficiently in dealing with such matters as salaries, job and production problems, grading up of personnel according to new standards, evaluating supervision, etc.

It is vital that all the main personnel groups of the organization be represented at such "review" meetings—the general manager's office, the training department, the employment department, the medical department, and the manager and supervisors of the particular department under consideration. Careful records should be kept of the procedures and results of such meetings in order that progress in clearing up problems and gaining new viewpoints may be insured.

CHAPTER VI

Psychiatry in Industrial Health Work

In the study and treatment of the so-called functional disorders does the psychiatrist find the greatest opportunity for service to his medical colleagues in mercantile health work, though many cases of serious personality disturbances on an organic basis are constantly referred for his consideration.

The psychiatrist's interpretation and management of such functional disorders at a psychological or mental, rather than at a physical, level constitute the greatest departure in the therapy of these cases, and the practical results following upon this approach have done much in the general hospital, and more recently in the field of industrial medicine, to dispel the old suspicion against "mental therapy" and the unfortunate ignorance regarding the part played by the psychoneuroses and other mental disorders in the common everyday illnesses of the average patient.

That the psychiatrist, from the very nature of his special interests, may overlook physical conditions needing medical attention is a fear not infrequently voiced by the average physician. And yet in actual practice rather the contrary is the case, for it is not at all uncommon to find serious personality problems referred to him for study and treatment whose organic basis had been entirely overlooked. The psychiatric routine provides for a technique that involves a physical examination ordinarily more thorough than that usually employed in common medical

practice, and it is an habitual procedure for the psychiatrist to tackle first the so-called physical side of his case in order that he may at the beginning rule out any possible organic basis.

It was with the view of presenting rather briefly certain aspects of this work as we have experienced it, in relation to our own Medical Department and hospital, that this paper is written.

The more common problems seen by the psychiatrist may be classified under the following headings:

1. Chronic hospital-users
2. Compensation and sick-leave cases
3. Situation reaction cases
4. Fatigue problems
5. Frank cases where nervous and mental disease is suspected.

The above classification is of course a very artificial scheme and in a measure involves duplication from certain viewpoints; but it will serve our purpose and illustrate in the main what we want to bring out.

We will not attempt to enter into any theoretical discussion of mind and body or to berate physicians for ignoring the mental health of their patients while devoting their lives to the alleviation and prevention of physical ailments. Our purpose here is simply to present cases showing certain types of problems where the psychiatrist's services have been helpful as he works by the side of his medical colleagues in a large mercantile establishment.

With a store personnel of between 8,000 and 10,000 employees, our hospital or Medical Department runs approximately 60,000 consultations yearly. There is a rigid general physical examination prior to employment, and all questionable medical risks are ruled out at this preemployment period. All new employees become members of the

Macy Mutual Aid Association and are entitled to its sick insurance and medical service benefits in case of illness.

We were early impressed with what the physicians called their "chronic hospital-users." These were employees who failed to recover after medical or operative treatment and were more or less of a nuisance because of their insistent demands upon the attention of the physicians. Then there were a lot of cases who were constant visitors to the hospital for trivial complaints—"headache," "scratched finger," "pain in back," "tired," "run down," "constipation," and an extensive and interesting variety of bodily ills.

All of these individuals came to the hospital with sufficient frequency and were absent on account of illness often enough to have justified the management and their department heads in checking up on their irregular production, uncertain attendance, frequent absences from their department, and other matters affecting their personnel value. It was for the last named reason as often as for the medical problem they presented to the hospital that they were referred to the psychiatrist.

Chronic Hospital-Users: These so-called "invalid" employees may be divided into two groups—functional cases and organic cases.

The *functional cases* presented no positive physical findings when carefully examined by our medical men, and often enough they responded well to whatever palliative treatment was offered, but soon they were back in the hospital with a recurrence of their old condition or some new complaint. One thing stood out in all cases, and that was the fixation of their interest and attention on themselves and their bodily organs, an over-reaction to difficulties, a compensation for defeat through illness, which served as an alibi or as an attention- or sympathy-

getting device. Medical treatment at the physical level served to intensify the condition and further fixate the disorder.

Illustrative Case:

MARY T.—FEMALE, AGED 35 YEARS.

"A successful sales clerk but uneven in disposition, temperamental, childlike in sensitiveness and desire for praise." Began to come to the hospital in 1923; at first for being tired and nervous and later for various and shifting bodily complaints. She was finally given two weeks "leave with pay because she needed a rest," and following this a regular train of illnesses developed. Her medical record now becomes marked by frequent visits and consultations in hospital for "colds," "hysterical," "run down," "sore throat," "constipation," "sprained ankle," "excessive menstruation," etc., dotted here and there with periods of absences for one, two, and three weeks at the expense of the Macy Mutual Aid Association. This ran on with frequent illnesses for four years, often having hysterical attacks in the department and being sent to the hospital. Finally, after a six months' absence "with pay," during which time she is reported to have been "very ill," "clerks in store visited her and reported that she was flat on her back, couldn't walk, unable to eat, can't sleep, talks about dying. Mother and sister sat around and cried and talked about the seriousness of her condition. The family doctor reported that her nerves were exhausted and must have a complete rest." She is referred to the psychiatrist, on her return to the store. In investigating her work since she has returned, the psychiatrist finds that "she acts very tired, appears on the verge of tears most of the time, seems exhausted, sits down a lot, leans against the counter,

and seems to be a changed girl from what she used to be." Formerly she had been very alert and a splendid sales clerk, except for times when she would have a crying spell or hysterical attack or temper tantrum when something went wrong in the department.

In the background the following facts stand out from the psychiatric examination:

History of physical illnesses practically negative since early childhood, with exception of periods of slightly excessive menstruation (not an uncommon condition in neurotics). Present physical examination discloses nothing of any importance except twenty pounds underweight. Childhood considerably protected in the home, few friends and no companions other than mother and sister; always "nervous and cried easily." Sister attractive and married. After graduating from grammar school, went to work and became a successful sales clerk. Father complained a great deal about her not marrying and her lack of interest in the opposite sex. Has no boy friend. Never goes out—only pleasure is in home. Unusual affection and dependence on mother. Great sympathy from mother and sister when she is ill. Feels herself different from other girls; a growing unhappiness over this. Has often wondered about her not making friends; would like to go to parties and be like other girls, "have men friends and be normal." Speaks often of her deep affection for her mother and fear of her mother's death. Has gotten a great deal of satisfaction out of selling goods. But this has its hardships, and on days when her books are poor she has fears about losing her job; and whenever she has a fuss with anyone, particularly her section manager, it makes her very ill and she has to quit work. She often has trouble in her home with her father, and her mother takes up for her, and then she is very jealous of her sister and her happiness and it all at times makes her "awfully moody."

For the last year she has noticed that she has "cold and hot flashes," "loss of appetite," "dizzy spells," "trembling and shaking." At times there is profuse perspiration, difficulty in breathing, choking sensations, and a feeling that she is going to die. She has suffered much from crawling sensations on her legs and a disturbed heart action. At times there is a vague fear of something terrible about to happen. The entire picture of a psychoneurosis seemed clear and distinct.

After her life history was taken and a frank discussion of the means she was employing for getting her way and meeting her problems, the infantile reactions shown in running away from difficulties, in having temper tantrums when not able to get her own way, and becoming sick in order to get out of unpleasant situations and in order to create sympathy—a treatment program was carefully worked out which involved (1) reeducational methods; (2) part-time employment instead of full time, other activities away from the home of a social, recreational, and literary nature; (3) three good meals daily and regular sleep periods, with (4) very close contact and supervision by the psychiatrist.

Her sales on part time averaged as high as they were on full time. Her insight into her motives was good and her cooperation was complete, so that her problem cleared up within two or three weeks and she showed no further illness or irregularity in attendance or problem of any sort for almost a year. Then one day she had a "collapse in the department," was sent to the hospital, and from there sent home to rest for one week (a type of treatment contra-indicated in this condition). The difficulty we learned later was as follows: "A girl friend lost her father; she came up and, crying, told me about it. At the time my mother was ill and had been diagnosed by the doctor as having pnenuomia, and my girl friend's father

died of pneumonia. So I just fell and lost my nerve. After I got home I couldn't come back; it knocked me out. I was sick till mother was all right."

Eight months now since the last episode; she has shown no further trouble of any sort. Is selling full time in her old department and is said by her buyer to be the leader in sales in the department. All of her psychoneurotic symptoms she claims have entirely disappeared. Certainly she has been no further problem to the hospital.

The mechanisms in this case are rather common. A young woman not able, like the normal healthy person, to play her part in social life, and in competition with others of her sex to secure reasonable satisfaction in things that she longs to have and do; finds in the sympathy of the physician and nurse, the atmosphere of the hospital, and the loving and worried care of her mother and sister, means for gratifying her craving for attention; and in her illness, a splendid alibi for defeat and failure. We found her reverie life very active and a tendency to live in an imaginary world of her own making very marked. Like the child that she is emotionally, she runs away from life realities when they become hard and pressing, as was frequently the case in her department. She is fixated on her mother and seeks to occupy at home the center of the stage. This is accomplished through the illness she wishes upon herself.

We all of us employ or have in childhood employed similar means of easing up on our ego. When greatly disappointed over fancied wrongs and slights, when treated unfairly or misunderstood, how often have we pictured the regrets and great sorrow of our family at finding us terribly ill or in death.

Of course the treatment of the case involved a simple and clear explanation of the motivation of the whole thing. Of how she was seeking, through the pity and sympathy

aroused, to get what healthy minds secured through accomplishments, achievements, service to others, etc. She needed enlightenment on the effects of too much introspection and mental gossiping with herself; guidance as to how to objectify her interests, to seek healthy activities, and above all fairly close supervision over a period to see that she grasped fully and acted intelligently upon the treatment suggestions given.

Our real problem was to change her attitude toward herself, her job, her home, and life in general.

The ease with which such cases develop and the frequency with which they are found would justify more general consideration upon the part of the average physician of the psychiatric viewpoint in handling these problems.

Organic Cases: In the organic cases, where the personality disorder has grown out of or became engrafted upon a particular physical condition, we have to deal ordinarily with more difficult problems.

From childhood weakened by a predisposed personality make-up, having deep-seated faults in its structure, these individuals readily become mentally handicapped by the physical conditions from which they now or in the past have suffered. The organic condition has come to assume an importance out of all proportion to its real significance, and the sufferer modifies his life habits in keeping with his conception of the invalidism it has produced.

Often enough he has been aided in developing his disabling neurosis by his physician, who, failing to recognize the type of personality he is dealing with, over-emphasizes to his suggestible patient the care of his heart, the rigid attention to his nose and throat, the absolute necessity of a particular type of diet and medication, the very serious and dangerous condition in which the gall-bladder or this or that organ was found, or the dire results that may

have come if his case had not been handled properly or may yet come from negligence on the patient's part. In these cases do we often see the terrific effects of health education inadequately given.

Frequently psychological factors in the home—its atmosphere and personality relations—have been the predisposing elements, and the physical illness itself the exciting and precipitating cause of the neurosis. Be that as it may, the wretchedness of the lives of these patients is not at all grasped by the average physician. Dr. William J. Mayo has well said, "Neurasthenia, psychasthenia, hysteria, and allied neuroses are the causes of more human misery than tuberculosis or cancer."

Treatment by means of rest or bromides or a trip to the country or an ocean voyage and the like is as unscientific and futile in the light of our recent conception of these problems as would be lancing and blood-letting. One of our medical staff tells me of a middle-aged employee who on a meager salary had saved over a period of years a few hundred dollars. She developed a neurosis and suffered considerable mental distress. Her physician, having exhausted his therapeutic resources, urged upon her an ocean voyage that wiped out entirely her little savings, but did not remove her illness and its causes. Nor does that sort of therapy that consists of denouncing the patient as a malingerer do any good other than give a thrill of self-satisfaction to the denouncer who has discovered the culprit. As far as the patient himself is concerned, I have seen some very unfortunate results follow this crude procedure.

Good medical treatment in these cases implies a careful, time-consuming, and painstaking investigation of all the facts in each individual case; a thoroughgoing physical and mental examination, an intensive social or case history and a home inquiry; a skillful analysis of the entire

career of the individual; and a final evaluation of the essential causative factors, physical, mental, and social. We are now in a position to undertake intelligently a therapeutic program, and this almost invariably involves not only psychiatric, but medical and social treatment as well. But the patient is led to see the total picture and the significant relationships of it all. His reeducation is the goal aimed at.

Illustrative Cases:

A. C.—Male, aged 26 years.

Problem: Referred to the psychiatrist as a chronic hospital-user. Soon enough after employment in 1925, when he had become a member of the Mutual Aid Association (which furnishes to the employees medical service and sick-benefit insurance), this man became sick and was out five weeks with bronchitis. Later during the same year he was absent with pay several weeks for a tonsilectomy. The next year, 1926, he was absent "on Aid" seven weeks for a varicocele operation. Later during this same year he was out seven weeks more for a relatively simple nasal operation. In 1927 he was absent on aid seven weeks for sinus operation, and later on during the year two more weeks for slight "injury to his hand." Between times he comes to the hospital "rather constantly" throughout the year for vague complaints—"pain at the site of his operations," "headaches," "dizziness," "gastric distress," "indigestion," "pain in the muscles of the legs," "fullness of my head," "periods of not hearing well," etc. His

attitude in the hospital is often antagonistic and disgruntled, and he says he does not believe that the doctors know anything about his case. Is inclined to argue with them in a resentful manner at their failure to "cure" him or agree with his diagnosis.

Though a good worker at the occupation which he follows, he is ill so much of the time as to affect seriously his value to the store. The psychiatrist found that he had an intelligence quotient of 78, which gave him an intelligence rating of subnormal. He showed fixed ideas about his health and had acquired a considerable amount of undigested medical information which he discussed with great interest and obvious pleasure. His introverted personality furnished a rich soil for the development of his neurosis. It was difficult to turn his mind off of his health and his fears of having some serious, obscure, and incurable disease.

In the background the following things stood out. Throughout childhood "never wanted to associate with other children"; "preferred always (and to this day) to be with his mother or with chickens or rabbits and such"; "fainted easily"; "did not like to mix with others." Never got further than sixth grade in public schools, and left at age of thirteen years. Worked in a garage with his father for seven years; then later here as mechanic in New York. Married, but his mother fixation has prevented satisfaction in his married life. Out of this—plus his operations—have grown his psychoneurotic mechanisms. He is at present under psychiatric treatment.

I remember a young woman employee who had an appendectomy following the death of her father. There was an acute depression preceding the operation and for five

months following; she was out of the store on Macy Mutual Aid, most of the time in the hospital for reoperative work, having to do with adhesions that were supposed to be causing her disturbing symptoms. "Great pain in the abdomen and violent emotional outbursts at these times. . . . I would go wild and lose control of myself, and they threatened me with the strait-jacket—they put tubes in my stomach and one doctor would say this and another doctor would say that, and they never seemed to be interested in telling me what was the matter. I used to cry and ask what was the cause, and then they would tell me that I would have to be under observation for a while. Finally I was told that I had a nervous stomach and was treated by a stomach specialist. What really worried me was, I think, about my father's death, and then I think about myself, about never getting well. I feel that I will never be a well woman. One doctor says that I have gall-bladder trouble; another doctor says that I have ulcer of the stomach."

The mechanism behind this case was pretty much like the others described, and when she received absolute assurance as to her physical health and above all when she was compelled to go back to the job here in the store, at which she was most proficient, with two or three psychiatric contacts, her disturbed personality manifestations disappeared. She has been kept in close touch with, and for a year now she has shown no further problem.

Then I remember the case of a man in his late fifties, who was a constant visitor to the hospital for acute pain in the region of his old operation and for stomach and intestinal trouble. He had had three operations on his gall-bladder and had never recovered. His greatest distress was over a fear of dying at night, and he kept aromatic spirits with him to use when he would have his

choking and sinking spells. Though he was an old employee, in that he had been with the store a good many years, the question of lay-off was getting to be a rather serious one, owing to his constantly being out of his department, his running to the hospital, his fainting attacks, and the fact that nothing seemed to give him any relief or at least enable him for a period to produce at all satisfactorily at his regular work.

Routine medical treatment in this case made no progress in its solution until we had gone into the background. He had married a young woman in her late teens. There were two babies—three years and five years. There had been excessive sex life. His wife had become an "invalid" and he himself had become impotent and suffered much from fatigue. He realized that he no longer could compare in selling with the younger men in his department. There was a "horrible fear" of being laid off and of not being able to secure work and support his family. His chronic invalidism was largely the outcome of his personality problems.

In all of these cases we must bear in mind the physiological fact that following sinus, gall-bladder, pelvic, and other operative interferences, and after the disease processes have cleared up, there will be a liability in predisposed personality types to continuance of the disturbing sensations, arising from the alteration in the tissue structure, resulting from scar tissue contraction. These tend to fixate the mind of the patient on his condition and induce in him the belief that grave pathologic conditions are at the root of his trouble. Of course, in a patient with deep-seated personality disorders, such an end result is particularly apt to follow acute illnesses, especially those involving operative measures.

It is my belief that a considerable proportion of the "chronically ill" show important disturbances in their emo-

tional life and disorders of the total personality of such a nature as to hamper seriously any therapeutic endeavor that does not recognize their etiologic relationship.

The above cases of chronic hospital-users selected at random give some idea of the significance in industrial medical work of this problem, particularly when it comes to time consumed in medical consultations, unsatisfactory results from the usual medical treatment, and cost to the Mutual Aid Association in sick benefits and to the store in irregular and poor production.

Compensation and Sick-leave Cases: These problems from an etiologic and therapeutic standpoint are not essentially different from those considered under the heading of "Chronic Hospital-users." They simply come to the psychiatrist in a different way and have not necessarily been any previous problem to our medical department.

The issue is one of diagnosis and advice to the hospital in connection with permitting a leave of absence "on Aid," or compensating for a sick leave that has been taken. Physicians' certificates testifying to a disabling illness are apparently not difficult to get, and our own medical staff wish to be fair to both the employee and the Aid Association. Many cases come to them that are quite difficult to decide.

E. A.—Female, aged 46 years.

Had been employed as a sales clerk ten years and ran "good books." She took sick and had her physician phone the store's hospital that she was ill. His diagnosis was a "breakdown; she needs a prolonged rest." She was out four weeks, and then was instructed by the store to report to the hospital inasmuch as the visiting nurse did not

regard her case as sufficiently serious to continue further visitations. Upon reporting, she claimed she was physically unable to return to work and, being examined by our own staff, her physical examination did not disclose any positive findings. She was referred to the psychiatrist to determine whether an additional month away "on Aid," which she claimed was absolutely necessary and which her physician advised, was really desirable or essential. We did not find any evidence whatever of a definite nervous or mental disturbance, but did find a desire to be sick and a great fear of returning to her old department. She had for a period of years been a "grabber" (stealing customers from other clerks) and she had been in the habit of hiding under the counter the choice merchandise in her section, so that the other clerks could not get access to it to sell. The other clerks "despised" her, and finally the thing came to the ear of the general manager, who talked to her "straight out from the shoulder." Following her reprimand she became ill, felt that she had been outrageously treated, and could not "physically" get back to work.

The psychiatrist advised that she should not be given further "aid," but should from a therapeutic viewpoint be returned to work. He further pointed out to her, as courteously and understandingly as possible, her motives and sought to give her an objective viewpoint and an insight into her own personality difficulties, which were the cause of her present trouble and the forerunner of future trouble. She returned immediately to work, and not only has given no further trouble, but is reported by the buyer to be making an effort "to be helpful with the other clerks."

There are many other types of cases presenting quite a variety of problems that come to our attention, in connection with advising our hospital staff, relative to the

compensation and sick leave of employees. In the great majority of these cases the psychiatrist has found that leave of absence from work is not good therapy. There is present in all of us a tendency to take things easy, if we find a good excuse for doing so. The person who gets paid for being sick is not infrequently apt to make an incomplete recovery. In these cases where the illness offers a good excuse for getting out of something disagreeable, we are only contributing to the character deterioration of our patients by permitting ourselves to become the audience for their striking dramatization of disease.

A few of these cases are malingerers, but the great majority show serious enough personality disturbances to warrant psychiatric consideration and treatment.

In fact, this tendency to shirk our own responsibilities in life and use varied means to soothe our own consciences is not, in most of us, usually realized. These difficulties are in the field of the emotions, and not in the field of thinking.

There is an increasing tendency on the part of our own hospital staff to use psychiatric aid in dealing with these sick-leave and compensation cases, the great majority of which get well more quickly if put right back to work on the job and given psychiatric follow-up.

This careful consideration of "sick-leaves" upon the part of the psychiatrist, in the cases of those who present no physical disabilities, has resulted in a better understanding upon the part of the general medical men of personality problems in relation to work and life adjustments.

Situation Reaction Cases: There are a great many cases, particularly among women workers, where the hospital environment represents a retreat from a difficult job or irritating home situation. The quiet, restful atmosphere of the hospital, with a kindly, sympathetic nurse, is particularly liable to aid the patient in running away from

painful realities, to fixate her escape mechanisms, and develop and intensify a neurosis, rather than bring about in the patient an understanding of her motives, a recognition of her personality inadequacy, and a desire to meet successfully her problems; to be a good sport and play the game according to its rules.

A lot of these employees, after an argument with their section manager or supervisor, or a difficult situation with a particularly irritating customer, or a forced change of work to another section which they dislike or do not understand, or after a fuss with another employee, or a serious pressure of work on a busy day, seek relief in the hospital, where the treatment is a sympathetic nurse, a darkened, cool, quiet room, and some sedative. There is no conscious effort, routinely, to get at a real understanding of the patient's problem and to orient and readjust the upset employee to the reality of her situation.

We have here a type of personality that easily becomes the chronic hospital-user and readily develops invalid tendencies. And yet the ordinary therapeutic measures usually employed in industrial medicine not only do not aim at prevention, but actually tend to facilitate the development of a neurosis.

R. Y., 23 years of age, comes to the hospital in an hysterical condition, laughing constantly, very vague in speech, and does not seem to know where she is. She is given the routine procedure of rest in bed, and the psychiatrist is called. The girl tells him she cannot stand her department; she suffers much from eye strain (from the artificial light) and the great rush of work at the counter makes her very nervous; she had been trying for some time to get into a particular department on another floor in which she was interested, but had not been able to secure a transfer. This present department was rather distasteful to her for several reasons. The fact was that

the department that she was in was really a very desirable department, and her motives for seeking transfer into the other department would hardly stand an open investigation.

In the background—she had never finished grammar grades, though her psychological examination showed she had average normal intelligence and was quite capable of doing so. After leaving school she took up a bookkeeping course, but soon gave this up, as she had done other things. We found in this case a personality soil, rich for the development of a psycho-neurosis.

What this employee actually needed was a careful analysis of her personality and a guidance program.

A. B.—Female, aged 22 years.

Came to the hospital in a "nervous spell" reporting that she suffered much from headache, dizziness, fatigue, and could not go back to work. She remained out one week ill, and upon her return was referred to the psychiatrist.

He found that she had been working in the store five years and had been very satisfactory. Her illness had come on immediately following a transfer to another line of work. She had been doing marking and was regarded as a very reliable and most satisfactory worker. So well was she thought of that it was decided to place her in a rather important position as a supervisor of a group of girls. But within two or three days after this was done she began to get ill and had to leave work. The psychiatrist further found that the individual herself was of subnormal intelligence, rather slow in her speed tests, but painstaking and accurate. She was of a very emotional, introverted personality make-up. She had become greatly upset because of the fact that she was transferred to a position where she was placed in charge of others.

In this work she had to assume considerable responsibility. This was a type of work for which she had neither the intelligence nor the personality to do well. This whole thing weighed on her mind so seriously that she did not want to come back to work. Incidentally, her father is unable to work steadily. He has "nervous spells"—particularly when there is much pressure at his work.

The psychiatrist recommended that inasmuch as this individual had none of the qualities for supervisory work, she be returned to her old job, and that there be one or two psychiatric contacts with her in regard to her personality make-up. When seen three months later, everything was going nicely. She is back at her former work and is quite contented.

Fatigue Cases: These may be viewed from four main angles of approach, therapeutically—those in which physical conditions are the important factors; those in which the personality make-up is the primary consideration; those in which serious home problems are the disturbing issues; and finally those in which the job situation is the chief instigator of the trouble. As a matter of fact, most cases present a combination of factors. Rarely, if ever, do we find only one cause standing out in a given case.

There is little to be gained from a discussion here of the part played by fallen arches, Bright's disease, and other physical conditions, in the fatigue of workers, or of the frequency with which underweight and low blood pressure are found associated with fatigue and poor production, nor is it worth while to reemphasize what has already been said as to the part played by seriously disturbed emotional states, in affecting the appetite and sleep of individuals and in inducing fatigue.

We are all quite familiar with the part played by serious home problems in affecting the entire personality. But what is not commonly realized and taken fully into con-

sideration is the influence on a worker of the job itself and its environment in bringing about his or her fatigue.)

To this we will give some little thought and discussion. The trouble starts when the worker in a busy job finds difficulty in maintaining the right mental poise and attitude toward the job situation. In order to do this effectively, all conflicting nervous impulses must be inhibited, all distracting ideas and feelings must be suppressed, in so far as they are incompatible with the work at hand. This is not difficult to do, providing the work itself is intrinsically and spontaneously attractive to the worker. But when the work is uninteresting and emotionally unsatisfying, or particularly if it is distasteful, and the atmosphere of the job is irritating, or if it is more complex and difficult than the worker is able to perform, a favorable attitude of attention and the right sort of emotional drive for performance is hard to maintain. Particularly is this true in certain predisposed personality types.

Boredom soon develops. The waning of interest weakens the attitude of attention and volitional efforts have to be employed to maintain the requisite mental attitude for performance. The natural rhythm of work often developed by the worker now fails, through fatigue, and conscious efforts have to be evoked to carry on the work, which further increases fatigue.

Conflicting ideas hitherto repressed because of their incompatible or undesirable emotional concomitants break loose from inhibition causing anxious moods, unhealthy attitudes, and unreasoned fears to intrude into consciousness, bringing in their train pessimistic reverie and irrational thinking.

Lapses in the quality and quantity of work output have by now resulted, and the worker frequently complains of being tired and run down, of being nervous and needing a rest. Either she voluntarily goes, or is sent, to the hospital,

where in the past she has received two weeks at camp, or a period of rest at home "on Aid," often with tonic treatment.

She returns to work later to face just the same causative factors as previously assailed her on the job.

Illustrative Case:

L. A.—Female, aged 19 years.

Employed as a cashier, was of superior intelligence, having an I. Q. of 113. She had graduated from high school and had dreamed of a "nice attractive office job" where she would be associated "with people who would be stimulating." Her family circumstances were such as to necessitate her going to work, and no other job seemed available except that of cashiering in our tube rooms. She took this, and passed through the training period easily, standing well in performance. During the first week on the job she did as well as any newcomer, and seemed fairly promising as a cashier. One day she had a "short" of twenty-five dollars. This she could not explain, and it frightened her how easily, out of a clear sky, such a thing could happen. "It made me nervous and fearful of losing money." The next week her change was short twice—ten dollars each time. Over this she had a crying spell and did not sleep "for one whole night." Visited the hospital three times during week, complaining of being tired and worn out. The next day, after the sleepless night, she had a twenty-dollar short, and when notified had an hysterical attack. Was taken to the hospital, and when later referred to the psychiatrist, amid tears told the psychiatrist that the work was "very fatiguing" and it seemed hard for her to hold her mind constantly on the transactions; that during the first week she found her mind wandering off of the job into

other things—particularly wishing for other work and picturing "a more pleasant job." "After my first short, I became filled with fear." This uneasiness, together with a growing dissatisfaction of the job, made for much mental gossiping with herself, which in itself prevented her from being mentally prepared to attend immediately to a transaction when the carriers on the moving belt arrived at her desk. Not fully concentrating on handling the transaction, owing to the evident day-dreaming that had developed, an error-making tendency easily crept in. And so a vicious circle was easily established.

Treatment in this case consisted not of rest, or social service, or tonic medication, but of transfer to another job. This happened to be a sales job, inasmuch as she had a fairly good sales personality. Here she had the opportunity for meeting people, in a particularly pleasant sales department. Her problems immediately cleared up, and now for a year following our original contact there has been nothing noteworthy in her case, except that she has turned out to be a good sales clerk.

Other Types of Fatigue Problems: Other types frequently come to the attention of the medical man, in which the principal factors are to be found in the home situation, the physical condition and the personality make-up of the workers.

Suspected Nervous and Mental Disease: Finally, one of the commonest services of the psychiatrist is as a consultant in diagnosing for the medical staff, frank cases of mental disease.

There is a growing tendency in general and hospital practice to give the same consideration to the mentally sick as to the physically sick. This is not a widespread habit, but, fortunately for the mental sufferers themselves, is an increasing and growing one. We have found our own medical staff quite glad to avail themselves of this diagnostic

service and aid in the proper hospitalization, or other treatment, of such cases. And these matters are routinely referred to the psychiatrist when there is any suspicion on the part of the physician of the mental condition of his patient.

All of the common, garden variety of psychoses sooner or later are met with in mercantile work, and it can hardly serve any useful purpose to illustrate by means of one or two cases the psychotic patients that are commonly seen.

In some of the milder forms we have not advised hospital commitment, but have handled them under close psychiatric supervision, right in the store, at their work, and have secured, in some cases, very satisfactory results, thanks to the great interest and intelligent aid of certain department heads.

Conclusions: In mercantile and industrial health work, psychiatry has probably a very important rôle to play, the least part of which is to be seen in what is popularly thought of as nervous and mental diseases.

The treatment of the clearly recognized abnormal does not in practical case work come to be the measure of the psychiatrist's usefulness to his colleagues and to the employees of the organization in ordinary, everyday industrial medicine.

To be sure, frank mental cases must be properly handled; good medical work implies the availability of the best facilities for taking care of these individuals. But it is for that much larger group whom we may designate as personality disorders, who are such prolific sources of "health problems," "attendance problems," "production problems," and "disciplinary problems," that the psychiatric technique is particularly valuable. The frequency of these cases as far as our own hospital work here is concerned is difficult to estimate. In general hospital work it has been stated that approximately 25 per cent of patients suffer

from psychoneuroses. In our own medical clinic here in a large mercantile establishment where the pressure of work output is often very great and where the fear of losing a job is a constant source of uneasiness, our experience would indicate a much larger percentage of neuroses.

Certainly the need of a psychiatrist in every well-organized medical department in industrial and business establishments employing several thousand workers is becoming increasingly evident to those who have given serious consideration to the problems created by chronic hospital-users, fatigue cases, sick leave, and numerous other patients whose outstanding difficulty is a personality disturbance, and where the practical results from ordinary medical and surgical treatment is anything but flattering to the medical profession.

The obvious relief to the conscientious physician at having the burden of these cases taken off of his shoulders is of itself sufficient justification for the employment of a psychiatrist, in that it enables him to tackle more effectively those medical problems with which he is especially equipped to deal.

The actual financial saving in the reduction of compensation for the sick leave of patients needing psychiatric treatment and readjustment of their personality right on the job, rather than a period of idleness at home or away in the country, would very nearly maintain the salary of the psychiatrist.

The benefits to be derived by the patient himself in his restoration to health and efficient production, together with the resulting clearing up of many a tense home and family situation (often the outgrowth rather than the cause of these personality disorders), are some of the matters to be thought of in connection with the more serious "hospital-users" and "health problems."

Finally, not the least in importance is the question of

where does the department in which the individual works and the organization by which he is employed come in for consideration. What of the personnel value of this employee? He is not an asset as an employment risk. Can he be made an asset or is he to become a liability?

All these are live questions relating to a very large number of employees that we find either have already become or are in the process of becoming health and production problems, a situation not restricted to one large mercantile establishment, but common to all.

Among the many lessons taught is a suitable health education program. Popular education in health has been a good thing on the whole. Its danger lies in its production of hypochondriacs.

The over-emphasis on the early signs of disease, in the case of predisposed personalities, has resulted in a great fear of the mysterious and the unknown; has brought about an undue concentration on simple aches and pains, and has created health and sickness complexes which are the familiar end products of incorrect and inadequate information, an illustration of a little knowledge becoming a dangerous thing.

A health-education program that is aimed at the prevention of illness through a systematic and intelligently planned education of the individual along the lines of modern hygienic principles, both mental and physical, that seeks to inform him as to how to keep well both in mind and in body, is an unmixed blessing. But this cannot be said of the sort of health education that has as its primary aim, and stops short at, the persuasion of employees to come to the medical clinic at the first signs of anything wrong, in order that they may receive treatment for such conditions as are found. At one time this was a progressive step in health work at the time when negligence and ignorance relative to important physical conditions prevailed.

But today health education has pushed farther afield than treatment and places most emphasis on keeping people well through knowledge and information.

The industrial physician is coming more and more to be depended upon for aid in dealing with other matters than purely treatment of the sick. Issues affecting the personnel value of employees; matters relating to the effects of certain jobs in producing fatigue or influencing the health of workers; medical matters affecting employment, placement, training and management—will more and more in the future be referred to him. He needs a technique that will enable him to review scientifically the whole case, the entire individual, and not just a part of him. A training in psychiatry is a fundamental need of industrial physicians.

CHAPTER VII

A Psychiatric Guide for the Employment Interviewers

Function of the Interviewer: It is the function of the interviewer to bring together, analyze, and digest all of the information that bears upon the suitability of an applicant for a given job, as well as his general value as a personnel risk for other possible positions. She sums up all of this information into an individual diagnosis and decides to employ or reject the given applicant. The interviewer herself is the most important element in the entire employment situation. Her knowledge, experience, interviewing technique, and diagnostic ability become the index to the quality of personnel employed. Tests and other tools to be used can aid and guide her in getting a better knowledge of certain aspects of a given applicant's abilities, but they will never alone and of themselves furnish sufficient information to afford a safe basis for securing employees, for they do not evaluate the personality. Her special training and experience should have given her a clinical knowledge that forms the background for understanding the physical and mental factors that underlie faulty human adjustments that bring about failure at work or failure in other life situations. This knowledge constitutes an understanding of the personality, a diagnostic acumen that enables the interviewer to make satisfactory estimates of the possibilities in any given applicant for successful adaptation to work.

If sound progress in employment work is to be attained,

we must cast aside theories of inborn, mystical ability to "size people up" or "to read character." What all honest investigators are after is a discipline that presupposes a knowledge and a technique—a discipline that offers something more solid than guesswork.

The issues involved in work adjustments do not differ in their fundamentals from those underlying behavior problems in other walks of life. These issues can be approached in the same scientific spirit that we have sought to understand natural phenomena in general. Long since have we discarded the idea that behavior disorders, either of children or of adults, are not amenable to an acceptable scientific method of inquiry. We are forced to deny the fact that people are just good or bad employees and that by some trick method the sheep can be picked out from the goats; nor do we stand any longer for the belief that there is no known way of ever telling just how an applicant will behave to a given job situation. That these things can be investigated and fairly well understood, and that they can be approached in the same scientific spirit of study that we have sought to understand other human problems, is now an accepted fact.

It has seemed that there was a gulf between the practical, "hard boiled," experienced man of business with a good common-sense background who does the employing, and the laboratory psychologist whose exact methods of measurement will have nothing to do with the shrewd "hunches" of the practical man. The first in his attitude toward scientific method oscillates between a naïve gullibility—swallowing hook, line, and sinker—and open resistance and antagonism. On the one hand, we find employment people who expect a simple intelligence test to select good employees for them, as though the matter of cleverness or smartness was the principle determining factor in work success. While, on the other hand, we find inter-

viewers who will have nothing whatever to do with the whole thing, due either to a misunderstanding of the use of such methods or to prejudice against a technique in which they themselves are not trained. In other words, the average interviewer does not utilize the psychological test at its proper value.

The industrial psychologist in his ambition to settle at one blow all employment problems has sadly over-sold the matter of psychological tests or himself has misunderstood their limitations. Inasmuch as he too often leads the layman to feel that the psychological test itself is the selective agent. The fact is that neither one of these groups is wholly right or wrong. The interview, if properly conducted and intelligently interpreted, opens up knowledge concerning the applicant's past history and ways of behaving that furnish the most fruitful basis for judging what his future adjustments are likely to be, while the results of the psychological tests disclose abilities and disabilities that when properly interpreted by the well-trained interviewer in the light of all other information about the applicant contribute an addition to employment technique that is invaluable. But neither by itself offers an adequate method for diagnosing potential work adjustments.

We have in the interviewing situation a problem to be attacked similar to that presented to the psychiatrist in diagnosing the factors underlying his patient's behavior disorder and making a prognosis of the future outcome. We have come to the conclusion that every phase of the study of a given case as it is carried out by the clinician can be utilized by the interviewer in determining the work adjustment possibilities of a given applicant.

Importance of Detailed Knowledge of the Job and Its Environment: In order that the interviewer may be able to predict with any degree of satisfaction the possible success or failure of a given applicant, she must be well ac-

quainted with just the thing that the applicant is expected to do—the job and its environment. Not only is this true from the point of view of routine work and production records, but from the viewpoint of the possible effect of the work on the individual employee.

If she is skilled in her technique of eliciting information as to the individual's personality, she will be none the less ineffective in selecting good material for particular jobs unless she has so complete a knowledge of the work that she can relate the personality factors brought out in the interview to the particular ones desirable or undesirable in the job in question. Even such seemingly like jobs as those included under the general head of clerical work present problems in individual fitness which the interviewer cannot meet unless she has at hand a thorough analysis of the job and has incorporated this into her employment technique. Not only do the details of the work vary, but the environment, the type of supervision, degree of concentration, amount of variation within the job itself, etc., all are different, sometimes even within a limited section.

For example, such detail clerical work as is involved in keeping a control on orders for merchandise—our so-called Order-checking Division. There are two groups of people doing this job. One of these groups is on the tenth floor and has its work very well planned and centralized. The other group is on the ninth floor and has a rather different situation to meet. The work is more individualized. There are extra duties not included in the work of the upper-floor group; the type of merchandise and the buyers of it are different, and so the factors involved in success must necessarily vary. Similar variations and differentiations within jobs occur in almost every group studied. It is, of course, well-nigh impossible so to analyze these minutiæ of jobs to too great an extent. The result of that would

be an almost endless confusion and inability to retain a clear concept of any of them. But it is essential that we keep in mind those outstanding differences in all the jobs we study, as far as possible realizing them in their importance as guides in selection and placement.

A first-hand acquaintance with a task through actually working at the job itself for a short period is desirable. Every effort should be made by the interviewer to analyze her own mental content, her feelings and attitude toward the job she is studying. She should seek to put herself in the place of a potential employee and introspect on her own reactions to the given work.

It is important that she make some judgments and secure some actual information bearing upon the type of people who do just this sort of work; what sort of equipment, from a physical and mental viewpoint, is needed; what sort of social status is the group drawn from; what ages, schooling, etc., seem pertinent to this type of work. The more she knows of the personalities that succeed and those that fail the more accurate will be her employment selection. As she comes in contact with the job, she will find that often other considerations than the actual work itself are determining factors in connection with the satisfaction of the employee and his or her ultimate status—such matters as the personalities of those supervising and at the head of the department; the ideals and standards of the department—whether loafing on the job and mediocre results are tolerated or whether an over-amount of pressure in order to meet the demands of exacting production records is the rule; or whether the department as a whole is well tuned up to that sort of work achievement that gets the best out of the individual employee at the same time that the greatest amount of individual contentment and average normal health is maintained among the employees.

For the interviewer to know all of these facts means con-

stant contact through personal follow-up actually on the job. None of this data is of sufficiently static quality to be acquired at one blow and then retained for permanent use. Only the merest outline, in the way of job specifications and analysis, can be given her through the ordinary write-up of the work. The many changing relationships that have to do with the success or failure of the people who do the work can only be fully grasped through her own intimate personal contact with those who are daily on the job.

As a reminder and special guide, there should be available carefully prepared job descriptions, job analysis, job and personnel specifications. This material is likely to change from time to time, but it will be a helpful aid in keeping before her at all times the essential facts to be considered in connection with any given job.

Methods Employed in Conducting the Interview: The employment interview may be conducted under the following main headings: (a) Personal History, (b) Personality Study, (c) Home Problems.

The *Personal History* may for practical purposes be considered under the following headings (1) Developmental History, (2) Health History, (3) Educational History, (4) Work History. (The interviewer should probably start the interview with the work history.)

The *Developmental History* has to do largely with an inquiry into the important facts relating to the normal physical and mental development of the individual, and for practical purposes is of little use in connection with the employment technique. It is a fundamental field for investigation in the clinical study of an individual as a patient, but in connection with the employment interview, the information gathered will prove difficult to evaluate. So that this phase of the study may be practically ignored.

The *Health History* is a most important, and in fact an essential, field for investigation, not only from the point of view of actual past or present physical conditions that may seriously affect the applicant's chances for success at work, but as throwing light on mental conditions and personality disorders that so commonly reflect themselves in bodily complaints and influence the employee's work value. An acquaintance with psycho-pathology will give the interviewer an insight into the meaning of many of these supposed physical symptoms and their significance in the individual's work adaptation—how and why certain people become sick and later accomplish a neurotic adaptation toward life. These issues will be discussed in more or less detail under the heading of "Personality Study."

It is advisable to inquire into the past health history with special emphasis upon accidents, operations, convulsive seizures, the ordinary physical defects and disorders and serious or prolonged and debilitating illnesses. Recent changes in the applicant's health and his *present physical condition* should be carefully questioned. These conditions often show themselves in changes in appetite, digestion, sleep, and his feelings of general well-being. Fatigue, headaches, dizziness, constipation, eye strain, indigestion, insomnia, menstrual difficulties, and the like are brought out in the interview, and these often are of considerable importance in enabling the interviewer to make judgments as to the future work value of the applicant.

Frequently the medical examiners will accept as a *fair risk* individuals whom the well-trained interviewer will turn down as being unprofitable material for the reason she has long since learned—that the issues which actually lower the worker's efficiency and production value are not so much due to recognizable physical diseases and defects, as to the mental attitude with which the individual deals with his personal and other problems; not so much what

is actually the matter with him as what he thinks or wishes, or feels to be the matter with him.

However, she will bear in mind that she is to leave to the medical examiner the acceptance or rejection of new employees when physical conditions affecting work value are in question. A health record, however, of the applicant will often throw light upon important matters affecting physical endurance, ability to work under steady pressure, to tolerate standing jobs, or lifting jobs, or long hours, or extremes of heat and cold, or exposure, etc., and should be thoughtfully taken by the interviewer as a part of her study of the individual applicant.

Educational History: The school career and the educational background secured by an applicant for employment may throw light on many issues that determine the choice of work, and sometimes success or failure in certain jobs; may even throw light upon the intelligence development and the drives in his personality, such as ambition, vocational interests, etc.

Such a history, when properly taken, gives a picture of the opportunities the individual has had for equipping himself, and the use he has made of these opportunities. While the practical purposes of the inquiry must be definitely limited to essential points of which the interviewer can make immediate use, still, in some cases a more extended investigation is profitable. Our object here is to call attention to those essential facts that must be obtained in any given case, such as:

1. Grade reached in school
2. Age at leaving school
3. Going to school at present
4. If so, nature of studies being undertaken
5. Special vocational training

6. Work experience that provides specialized training
7. Future educational plans

Work History: The work history should start off with an inquiry into the individual's first regular job, its nature, as well as the type of concern in which the applicant was employed, the salary he received, the duration of his employment, the reason for his leaving, the length of interval before the next job, its nature, the type of business with which it was associated, the salary received, his attitude toward the work and the people, the duration of that employment, his reasons for leaving, the length of the next interval of unemployment, and so on and on up to his present position or last work at which he was employed. These details should be taken personally and not necessarily secured on the employment blank.

A carefully gotten work career throws a striking light upon the personality of the applicant, and data secured from it can be included under your estimate of the personality characteristics of the individual. It not only indicates whether or not there has been a purpose and goal to which the individual has been striving, but also what degree of success or failure has he met. The work career brings out specialized interests and experiences, and becomes, when properly taken, a valuable index to the future work ability and adjustment of the applicant.

It is important that this phase of the interview be thoroughly conducted in a scientific spirit and not hastily brushed over; for no better source is available, in the entire investigation for forming safe judgments concerning the individual's work adaptability.

This, the work inquiry, places the applicant at ease, inasmuch as it enables him to talk about himself and about things with which he is entirely familiar and in which he is

usually interested. It is a good idea to start the interview at this point of the history.

Personality Study: The most important phase of the interview is the inquiry directly relating to the personality make-up of the applicant.

Our first approach to this problem will be to select certain fundamental aspects of human behavior and describe them with a view to the evaluation of "the whole individual." Many of the characteristic reactions are evoked only through the social environment, and the interviewer will have to depend upon the personal history, or the individual's own account of how he has met certain given situations, in order to judge the typical reactions, or trends, or drives, within the individual. Often her method of securing adequate data to make such judgments will have to be indirect and very general in approach. This account, from the individual, of his attitude toward important problems and his ways of behaving to fundamental situations must not be confused with the many forms on the market for making self-estimates of one's ability and character. These latter self-rating tests have proved unreliable both in experiment and in daily life. But the personal history, when directly taken by the thoroughly trained investigator, brings to the surface motives, attitudes, and characteristic traits of the personality that undeniably act as the driving forces in behavior.

The value of such data will, however, depend upon the interviewer's powers of observation and her facility at analysis and interpretation. This will show itself in her evaluation of physical appearance, significant attitudes, bodily movements, mannerisms, facial expressions, voice moods, definite drives, mental patterns, and the general symptomology presented in each case. Of course, the better acquainted she is with the clinical case method of study, the greater her diagnostic ability is likely to be.

She should have read Mr. Shand's book, *Foundation of Character;* Dr. McDougall's book, *Social Psychology,* also *Abnormal Psychology,* by the same author; *Social Psychology,* by Alport; *The Trait Book,* by C. B. Davenport; *Foundations of Personality,* by Meyerson; White's *Outline of Psychiatry,* also his *Foundations of Psychiatry;* and she should be acquainted with the mental-hygiene literature gotten out by the National Committee for Mental Hygiene, 370 Seventh Avenue, New York City.

That type of outline which brings into play those characteristics which most readily may be investigated will be most serviceable to the interviewer. The following traits or main divisions of the personality are suggested:

1. Intellectual activities
2. Motor characteristics
3. Temperament
4. Self-expression
5. Sociability.

Intelligence: We are all familiar with individuals of superior intelligence, who in school get low grades, or out in life fail to make use of their intelligence; also we know the individual of dull intelligence but with a determined drive, with ambition and industry, who gets high marks in school and makes a reasonable success in life.

In other words, possession of intelligence, of quickness of perception, cleverness of learning, good memory and adequate reasoning ability, does not imply successful adjustment or solution of life problems. There are other factors—namely, habitual trends of effort in the direction of accomplishment, or what may be termed the "drive," of the personality, that have more to do with determining success or failure than the degree of intellectual development.

General intelligence may be considered to be that ability

or special trait of the personality by reason of which the individual learns and comes into possession of knowledge of his environment. It may be termed the individual's "problem-solving ability" or "reasoning capacity." Like the physical growth of the individual, the intellect should progress from year to year in its development.

There are certain practical questions relating to the intelligence, that the interviewer should have in mind when she investigates this aspect of the applicant's history:

A. Is the applicant's education commensurate with his opportunity for it?
B. Is he alert?
C. Has he seemed to learn from experience? or is he naïve and gullible and does he repeat the same mistake over and over?
D. Is he attentive, and does he seem to fix and hold his attention well?
E. Does he give a consistent, intelligent, well-related story?
F. Does he seem distractable?
G. How suggestible is he?
H. Has he any special aptitudes, or special interests?
I. Is his memory good?
J. Does he show good common sense?

Motor Characteristics: We might include under this category such traits as over-activity, under-activity, speed, impulsion, inhibition, tenacity, skill, etc. We are all of us acquainted with the over-hasty, impulsive, restless, talkative, bustling type of individual who rushes through his duties at great speed and probably completes no task thoroughly. Then there is the slow, under-active, static individual who cannot keep up with the pace set by the normal worker. There are all types of modifications of these characteristics, but they ordinarily are constitutional

in origin and indicate the motor set or pattern in any given case. Undoubtedly well-controlled and suitably directed movements, free from haste and spurts of activity, keyed to a healthy, normal rate of speed, in the long run secure the best work results.

One important thing to recognize is that the over-active individual may show powerful impulsions which drive him to action in order that he may give the appearance—either to himself or others—of being in great haste and having much to do. Or he may show over-activity, due to excessive energy output, free from the normal inhibitions that commonly are built up in the average person to permit of the wisest choice among a group of possible lines of action. While the under-active personalities may exhibit inertia, due to limited energy output or to powerful repressions and restraining inhibitions.

Questions in the mind of the interviewer might be as follows:

A. Does the applicant display tension or "push" in his activity?
B. Is he restless or over-active?
C. Does he seem inert?
D. Does he seem static?
E. Is he over-talkative or under-talkative?
F. Would you judge his activity to be persistent and steady or capricious?
G. Does his life history indicate that he has or has not finished undertakings?
H. Does he seem sluggish or lazy? Does he slouch as he walks or sits?
I. Would you judge him easily fatigued?
J. Do you think that he could be speeded up easily? Or easily slowed down?
K. Do his movements seem well coordinated?

L. Are his posture and gait good?
M. Does he appear energetic?
N. Would you judge him to be tenacious and persistent in the face of obstacles and discomfort?

Temperament: Feeling and emotion are exceedingly important constituents of personality on the subjective side; as they influence the mood of the individual, they become one of the most important subjective elements in his actual behavior. The emotional attitude, or set, colors the outlook and modifies the individual's adjustment possibilities far more frequently, and more seriously, than is ordinarily believed to be the case. Their dynamic value in the personality is seen in the mechanism of reinforcement and repression, in pushing the individual into overt behavior, or in inhibiting tendencies to act along certain lines.

The emotional attitude, the emotional stability, and the degree of control over the feeling and emotional aspects of our lives become among the really vital issues that influence job adjustment in any given case.

It is wise, then, for the interviewer to acquaint herself with the psychology and pathology of the emotions, so that she may apply this information in her analysis of each applicant for a job. She can well emphasize this phase of her investigation, particularly in connection with her follow-up work on the job, where she will find that many of her impressions that seemed little more than "hunches" have turned out to be dynamic factors, which she now can investigate in their definite relationship to the behavior of a given personality to work.

What we call temperament may be understood as the characteristic emotional level of the individual, such as the choleric type, the phlegmatic type, the sanguine type, etc. And the leading question concerning any given indi-

vidual may profitably be what part do emotions play in his daily life. Some people have a characteristic mood that is very easily discerned. They are of a gloomy, sullen, sour temperament and disposition; or they are cheerful, optimistic, and hopeful; suspicious, timid, embarrassed, over-sensitive, self-deprecatory, or pompous, or cynical, or snobbish, or irate. These moods and emotional attitudes greatly influence one's relationship with others, and are very important factors underlying work failure or work success.

Something may be done to change the trend of one's moods, through contact with the individual, through an effort to understand the origin and development of emotional sets and attitudes, and through seeking to give the individual a different viewpoint, and providing interests of a healthy and normal type. The results, of course, will depend on the amount of intelligence, the degree of cooperation, of the employee, and the question of time that can be spent in this direction.

The interviewer is to bear in mind that the significant implications in this whole situation have to do with avoiding the selection of applicants who exhibit too marked extremes of temperament and mood—the depressed, melancholic; the sullen, irritable, and grouchy person as well as the extremely cheerful, over-optimistic, exaggeratingly enthusiastic types. These extreme types are unusual and almost invariably make poor personnel risks. Everyone, of course, presents mild emotional attitudes accompanying their thoughts and actions, and when these emotional attitudes become fixed and permanent, they result in what we call traits of character.

Special Characteristics or Traits of Self-expression: *Extroversion—Introversion.* We have here reference to the tendency in individuals to make external or internal adjustments. The extremely introverted individual obtains

his satisfactions within a world of his own making. Adjustments to reality of an external nature are interfered with by emotional attitudes and trends within the individual that block effective overt behavior. These individuals do a lot of daydreaming as well as nightdreaming, where they are able to bring to fulfillment their repressed wishes or to secure an adjustment that is satisfactory to them. The consequences being that sooner or later, in many cases, there is actual severing of a proper relation with reality. When the condition is markedly pathological, we have the beginning of a well-known mental disease—dementia præcox. However, many introverts are effective, brilliant people, who are able to handle their personality defects through compensations that enable them to make satisfactory life adjustments.

In introverts, real conditions are distorted in such a way as to satisfy the wishes, or cravings, or viewpoints of the individual; an unreal and unnatural set of values are constructed out of life to suit themselves. There is an intense personalizing of all events and activities with which they come in contact, and they develop what we call "ideas of reference" in which nearly everything that is said or done by others may have a personal bearing. On this as a background they easily build up persecutory delusions. It is easy to see how such individuals, unless they are particularly capable and succeed in making satisfactory adjustments in life through the possession of special abilities, tend to avoid and run away from the difficulties of a dull, prosaic, uninteresting reality, or the routine of daily work, through the development of imaginary achievements and satisfactions. Marked introverts, unless they have secured some compensations through specialized abilities, had better not be employed as a general thing, though in some jobs, such as "marking," they may show good production. Of course we know that many of our most skilled

mechanics, best laboratory workers, and finest scholars are marked introverts; but here there are compensating factors of great saving value.

Extroversion does not present as clear-cut a personality type as introversion. The extrovert lacks the symptoms of repression, over-sensitiveness, unreality, protracted day-dreaming, etc., exhibited by the introvert and represents more the normal, well-balanced, well-integrated personality. He makes contacts with people quickly, and does not set up defensory attitudes, nor respond with unintelligible bursts of emotion or inhibitions.

However, both of these conditions are subject to great modifications and changes may be noted through environmental influence, in the tendency to introversion or extroversion, particularly when one's circumstances change rapidly. Success, prosperity, and personal satisfaction tend to make the introvert more extroverted; while failure, disappointment, and chagrin produce in extroverts inferiorities and shut-in tendencies, sensitiveness and defensive mechanisms. Extroverts make the best sales people. Our own figures show that more than three-fourths of the good sales people in this store were readily classifiable as extroverts. While more than half of the poor sales people were easily diagnosed as introverts.

Introverts who possess good clerical or mechanical ability and do not suffer from very serious personal or home problems may succeed well along clerical or mechanical or allied lines. So that in many of the non-sales groups we may well place carefully selected applicants with introverted trends if they do not show serious disorders of the personality.

Much may be said of the therapeutic effects of certain jobs in developing extroverted tendencies in introverts, and thus adjusting them to reality. Cases could be given here to illustrate the results of our work in this direction.

We could continue along these lines and go on further into a detailed discussion of other personality classifications or characteristics of make-up, such as dominant personalities, submissive personalities, expansive types, reclusive types, emotional types, egocentric types, paranoid types, inadequate types. Each one of these classifications includes a symptom complex that is peculiarly distinctive and has certain bearings upon the clinical inquiry for employment.

The paranoid individual, for instance, with his suspicious nature, will not work well in team work, and no matter how much special ability he possesses, is always liable to be a source of irritation and dissatisfaction in any closely organized group.

The egocentric personality, if marked, is very likely to be a "grabber," an individualist, and a disciplinary problem.

The reclusive personality will certainly not do well in any type of work requiring contact with people; he avoids people, is shut in, self-centered, and keeps his light hidden under a bushel.

The emotional personality is handicapped at work through his undue excitability or his marked moodiness trend.

The inadequate personality is often lazy, indolent, lacking in energy and "pep," and no matter whether he has good abilities or not, his production is always likely to be low.

It is well for the interviewer to be acquainted with the traits and characteristics comprising these classifications, and she should read general psychiatric literature, so that she may become acquainted with the significant implications involved.

Of course, it is clear that we are referring to marked deviations from the average normal personality make-up

when we classify a personality as being definitely "egocentric" or "paranoid" or "introverted" and the like. It is these extreme types which are in mind when we warn the interviewer against the problems they create.

Nervous and Mental Disorders: We have outlined, in our personality study, the need of evaluating the intelligence, the temperament, and the volition or motor characteristics or will power of the applicant. We have also mentioned the desirability of considering the special traits of character that make for certain personality patterns or types. We will now discuss briefly some pathological conditions that affect the personality and influence the applicant's success at work. It is not intended to cover all of the various forms of nervous and mental disorders, but simply some of the more common conditions with which the interviewer will come in contact.

Chronic Alcoholism: Suffused eyes, prominent superficial blood-vessels of nose and cheek; flabby, bloated face; reddened aspect of the face, tremors of the fingers and of the tongue, tremulous handwriting, etc.

Drug Addiction: Peculiar pallor of the skin, and in opium-users minutely contracted pupils, while in cocaine-users the pupils are widely dilated.

Dementia Præcox: Indifference; withdrawal from reality; ideas of reference, and at times of persecution; inaccessibility; peculiar emotional flatness; eccentric posture and gait; an apparent gap between feeling and doing. The individual appears detached, odd, eccentric.

There is often a lack of connectedness in conversation, though not always. Their past history (school and work) and personal career will usually show erratic and irrational conduct. Of course, the more marked cases will complain of their thoughts being controlled by others, marked delusions of persecution, hallucinations of hearing, bodily hallucinations, frequently of sexual or electrical character;

will exhibit meaningless smiles and most inappropriate emotional reactions. Of course, all such cases need clinic or hospital care.

Manic Depressive Personalities: Mild depressions, with or without feelings of inadequacy, fatiguability, talkativeness, marked over-activity, periods of exhilaration and expansiveness, marked restlessness, difficulty in holding attention on one task, etc. These individuals have periods of moodiness, "blues," inactivity, and low work production, alternating with periods of great activity, restlessness, exhilaration, etc. They get "knocked out" by minor illnesses, have to do a great deal of resting up, need frequent vacations, etc. They often have good intelligence, and during their well periods may be dynamic, productive employees.

Psychopathic Personalities: There is a large group of individuals who cannot be classified as insane or as feebleminded, but who, nevertheless, are incapable of behaving in a normal and acceptable way in the average environment. They usually have average or superior intelligence and frequently have good ability, but they suffer from disorders of their personality that so seriously handicap their special talents as to often unfit them for much usefulness out in society. They form the large body of the so-called "criminal class." They constitute the vagrant, the tramp, the unemployable group, and the periodic drunks. Their emotions are usually distorted and their life career is more nearly patterned on an instinctive basis than that of the ordinarily socialized adult.

The above classifications of paranoid personality, emotional personality, inadequate personality, egocentric personality, when exhibited in a marked degree constitute what is called the psychopathic personality. In these cases there is a constitutional basis, ordinarily, for the mental life they exhibit. This may be either hereditary or ac-

quired in early childhood. They are frequently very suave and make a good first impression.

The interviewer will notice in their work career and personal history the marked instability characteristic of these cases. Their employment is a risk, but, if hired, they require the closest, most painstaking and understanding follow-up.

Psycho-neuroses: Hysteria, neurasthenia, psychasthenia, anxiety neuroses, and such-like states are functional rather than organic conditions that often have no objective signs and may thus escape notice. These individuals commonly suffer from hypochondriacal complaints, undue fatiguability, marked "nervousness," inability to concentrate attention for any length of time, irritable weakness, pessimistic moods; they pay a great deal of attention to the function of their bodily organs; they have periods characterized by heart palpitation, difficulty in breathing, profuse perspiration, trembling, shaking, disturbances in appetite, dizziness, diarrhœa, etc. Of course, not all of these symptoms are presented in any one patient, but the conditions from which these individuals suffer are mental in origin. They often can be adjusted under proper treatment, and are found frequently in perfectly good employees. But unless suitable treatment is instituted, they sooner or later become serious personnel risks, and the disorders from which they suffer definitely lower their production ability. Rest, sympathy, and medical treatment at the level of their physical complaints are just the thing they do not need. These are all adjustment problems that must be dealt with as psychiatric cases. They had better not be employed, to begin with, but when found among regular employees, they should at once be referred to the psychiatrist.

Epilepsy: Epileptics are not easy to discern at the time of the interview. They frequently deny seizures alto-

gether, and in the history they often present nothing more than severe nightmares, dizzy spells, severe headaches, spells of weakness, etc. Their personalities are usually distinctly abnormal; they have violent and irritable spells, often over the most trivial causes. They have marked likes and dislikes, peculiar defects in memory, poor retention, and are unpredictable in their behavior. They often have very difficult personalities and are egocentric in make-up. Their convulsive seizures render them a poor personnel risk.

Feeblemindedness or Mental Deficiency: This condition is due to an arrest in mental development. The mind fails to grow commensurate with the body and there is a disproportion in the actual age and the mental age of the individual. They have the judgment, reasoning ability, learning capacity, and understanding of children under eleven years of age. As a consequence they are unable to compete in life with the average normal man or woman. These mental defectives, or morons, are best determined through psychological tests; they are often good workers and may make the most satisfactory employees if free from handicapping personality disorders and placed in a type of work specially suited to their limitations.

Individuals securing an intelligence quotient between 60 and 70 show borderline defective intelligence, while those under 60 have mental defective intelligence. Of course, this presupposes that the questions of language difficulties in the case of the foreign born, and pathological conditions that produce mental deterioration or confusion or great distractability, etc., have been duly considered in drawing conclusions from the results of the psychological tests.

Need for Some Technical Knowledge on the Part of the Interviewer: All the above mental conditions are just mentioned in passing in the most summary fashion. The interviewer should carefully study such text-books as

White's *Outlines of Psychiatry,* Henry's *Introduction to Psychiatry,* White's *Foundation of Psychiatry,* and other such psychiatric literature in order to get a more technical acquaintance with the symptomatology of nervous and mental conditions. No specifications or outline or guide can give her an adequate background for interpreting each case. This must be an outcome of her own growth, through reading, study, and actual work.

Physical Condition: About 9 per cent of those examined physically for employment are rejected because of physical defects or disorders that make them unprofitable risks. Heart and bloodvessel conditions lead the list, constituting about 26 per cent of rejections. Such conditions as diseased tonsils, hernia, very bad teeth, extremely defective vision or hearing, may cause rejection by the physical examiner. But there are a host of physical conditions that more or less modify the physical health or efficiency of the worker—nutritional disturbances, glandular disorders, flat foot, dysmenorrhœa, kidney conditions, chronic rhinitis, sinus trouble, etc.

The common causes of illness, such as infections of the upper respiratory tract, indigestion, and functional disturbances of the nervous system, cannot be traced directly to defects that can be found by routine physical examinations.

Dr. Swan has shown, however, "that a very definite relation exists between the physical condition of employees and absenteeism. Employees who need dental work, who have uncorrected errors of refraction, who are more than 15 per cent over or under weight, or who have some other defect that many people may consider unimportant, are sick more often, and therefore absent more than those who are in good physical condition. . . . Employees who have organic heart lesions, hernias, and serious defects are absent 42 per cent more than those in good physical condition.

The relationship is largely indirect, the disability as a general rule not being the direct cause of the absence."

Suggested Outline for Personality Study:

I. *Facial Expression*

Does the applicant look fearful, anxious, apprehensive, shy, timid, sad, gay, surly, hostile, suspicious, visionary, gullible, expressionless, intent, alert, eager, arrogant, cynical, fatigued, interested, indifferent, resistive, supercilious, etc.?

II. *Movements*

Are there movements of the head, of the face, of the body, of the hands, of the feet? Are there rhythmic quiverings of the mouth? Are there wrinklings of the forehead, peculiar facial expressions, peculiar attitudes of the body, nervous twitchings of the hands, licking of the lips, biting of the nails, idling with pencils and paper, etc.?

III. *General Observations*

Does the employee speak voluntarily to the interviewer of his own problems, interests, and ambitions? Does he talk freely and intelligently? Does he give a related story? Does he make a good first impression? Does he seem well developed and well nourished? Is his color good? Does he appear well dressed and neat? Is he careful about his clothes? Does he make a good contact? Does he appear to be full of problems of an emotional nature? Does he seek a listener and seem anxious to talk

about his troubles? Does he appear self-centered? Does he crave sympathy, etc.?

IV. *Speech*

Is the voice well modulated, full, resonant, and pleasing, or is it pinched, or small and strained, or loud, or harsh, or irritating? Does he stammer, or slur words, or lisp, etc.?

V. *Mental Attitude Toward Work*

Give details of the attitude shown by individual toward the jobs he has held in the past, and his reasons for leaving them; his eagerness to secure other work; how definitely decided he is on the present job under consideration; his attitude toward the nature of work it calls for, etc.? His vocational interests and work ambition?

VI. *Mental Attitude Toward Authority and Associates*

It is wise to make judgments of the applicant along these lines, inasmuch as the inability to take directions from those in charge, to work carefully under supervision, or to get along with one's associates is an important cause of resignations and lay-offs.

VII. *Mental Attitude Toward Home Relationships*

Is there friction, or worry, or difficulties of a psychological or financial nature at home? If so, how do they affect the individual and his attitude towards them?

VIII. *Mental Attitude Toward Himself and His Own Personal Make-up*

How does he feel about his own personal defects and disorders? Does he complain much? And

does he over-react, taking the whole thing too seriously? Does he feel inferior, or ashamed, or shy, or timid, or superior and well satisfied with himself, etc.? What is his attitude toward his own failures or achievements?

IX. *Psycho-neurotic States*

Such people complain of undue fatiguability or irritable weakness or inability to concentrate attention for a very long period of time; pessimistic moods, subjective disturbances of the nature of difficulty in breathing; profuse perspiration; trembling; shaking; disturbances in appetite; dizziness; diarrhœa, etc. These cases pay more or less continuous attention to their bodily functions, their attitude being to no small extent fostered by the undue sympathy received, or by medical treatment on the physical level, which in many cases centers the patient's attention on his bodily functions.

X. *Psychotic States*

XI. Peculiar ideas or feelings of uncertainty or doubts, memory defects and other undefinable miscellaneous conditions.

XII. *Recreation*

XIII. Summarizing the personality traits or characteristics (having specifically in mind the qualities or traits suited to the job in question.

Home Problems: It is important to know whether the individual lives at home or away from home; whether his family is partially dependent or totally dependent upon him. What is the nature of the home problems he has? One usually asks whether father or mother is living or

dead, in good health or poor health, divorced or separated or living together; whether the father is employed, if so, what is the nature of his employment. The same for the mother. Number of brothers and sisters, their ages, number at work. Where the residence of family is, etc.

Is the applicant single or married? If married, how many children? What is the economic status? Are there home problems; if so, of what character?

It is obvious that difficulties in the home may influence seriously the mental life of the employee, bringing on depression or daydreaming; may affect his attendance or his production; may be the most important factor requiring him to stick at work or the greatest cause of his resignation. A short outline of the home situation should be routinely taken.

The Evaluation of the Psychological Study: From the point of view of measuring certain abilities involved in the performance of certain jobs, the psychological method of testing is in many respects superior to general observation or to personal opinion, inasmuch as it is an objective, and thus a more accurate way of measuring behavior. For, it does not depend upon the subjective impressions of the examiner, which may vary from time to time in the same individual, and certainly will vary considerably with different examiners; also the results can be compared with those obtained in previous studies of the same individual or of other individuals, and standards of achievement can be established.

Unfortunately, we cannot measure the total reactions and potentialities of the entire human personality. So that the method necessarily is limited in its value as a basis for prognosing the future adjustment of a given person. There are, however, some aspects of the total situation that are in a way measurable. What we popularly call general intelligence, or mental alertness, learning ability,

speed, accuracy, motor dexterity, knowledge of arithmetic, etc., are subject to the experimental method of the laboratory and the results achieved already, in estimating these mental processes, are usually quite superior to the generalizations of most examiners.

Consequently, psychological tests properly administered can become a tremendous aid to the well-trained interviewer, in helping her diagnose the abilities, the disabilities, and the adjustabilities of an applicant. They do not claim, however, more than they can actually accomplish. They can give an individual a score in motor dexterity, or in accuracy, or in speed of reaction, or in appropriateness of reaction, or in general intelligence, but even these things by no means tell whether an individual will make a good cashier, or a good marker, or a good clerical worker, or a good driver, etc. These are issues far more complex than the mere possession of abilities to perform the task required. Issues that are only understood through a well-rounded, thoroughgoing clinical study of the total individual, the entire personality. This we have outlined in the foregoing pages.

It is through the utilization of the psychological test method, as an adjunct to the entire interview, that the applicant's potentialities can best be determined. But we will bear in mind that a high score in intelligence does not necessarily mean success at work, nor a low score in intelligence signify failure. We will want to know about the "drive" within the individual, his real interest in the proposed job, the make-up of his personality and its fitness for the work to be done, the physical health, the mental attitude, the work experience, etc., in every given case. The individual may be rated "good" in all special ability tests, and make a tremendous failure on the job because of personality trends and difficulties that handicap him. He may be rated only "fair" in certain ability tests, and yet

have the tenacity, industry, and ambition that ultimately win.

In our own work, psychological tests play a definite and sometimes important part. They are used as clinical aids to bring out certain reactions and tendencies that our job analysis and job specification study have indicated to be factors of considerable importance in performing the task. But we do not ask, or expect more of them than they are intended to give.

It can be seen from our previous remarks that there can be no greater fallacy than to put the interview on one side, and the laboratory method of measurement on the other, as though they are to be considered opposing methods of approach to the evaluation of the same factors in the mental and physical make-up of the applicant. They must be viewed as two different aspects of the same examination—the qualitative and the quantitative viewpoints. Certain phases of the study can be gotten best through a qualitative or clinical inquiry; while other aspects may be measured quantitatively. They go together to make a whole, and the employment technique, as we see it, is not complete without both.

Our own procedure at Macy's provides for giving to each job certain criteria and setting certain standards in the way of intelligence or accuracy, or knowledge of arithmetic, or speed, etc., which we expect to be met by applicants seeking employment. Our job specifications, which are in the hands of each interviewer, indicate the ratings set for each one of these items.

The following criteria for cashiers will illustrate this point:

Cashiers' Criteria:

1. *Ages.* From 17 to 25 are the best, preferably between 20 and 25, except part-time married women,

who may be between 25 and 30. Young married women do better in part-time work than single girls.

2. *Schooling.* Grammar-school graduates are required. The further up or down the scale, the greater frequency of problems.
3. *Personality.* Good attitude is essential. Those suffering from serious conflicts, the "so-called nervous types"; those with emotional maladjustments, wrong mental attitudes, and seriously faulty ways of meeting their problems; those who daydream or indulge unduly in mental reverie, particularly of a pessimistic nature—are liable to make errors and be slow in their transactions as cashiers. The well-integrated, well-focused, objective types who are alert, vigorous, and free from too much introspection; those who can develop a high degree of organic tension and maintain it constantly during work—make the best cashiers.
4. *Physical Conditions.* Vigorous, healthy girls, neither too fat nor too thin, free from any debilitating conditions or tendency to fatigue, with good muscular development, make the best physical types. The condition of the eyes as to vision and muscular balance is essential to consider. Also any condition of hands, wrists or arms, that may handicap or limit freedom of movement and motor dexterity, must be looked into.
5. *Home Conditions.* Serious home conditions, particularly serious illness or domestic difficulties other than financial, are apt to produce what is called daydreaming and error-making.
6. *Intelligence.* Intelligence quotients between 90 and 110 produce the largest proportion of satisfactory cashiers. I should not take any with an I. Q. under

80 unless the job tests and the rest of the study indicate well-developed specialized ability, and I would scrutinize carefully those over 110, as the latter are apt to get dissatisfied with the opportunities for advancement. Still, the social status is an important consideration, as many bright girls come from homes where a cashiering job would be quite an acceptable social achievement.

7. *Speed.* Those marked "poor" in speed should always be turned down, no matter what the other findings are. Either "good" or "fair" speed may be acceptable.
8. *Accuracy.* Do not accept any one marked "poor" or even "fair" in accuracy. Demand "good" for a rating. Otherwise, error-makers will get in.
9. *Learning.* Either "good" or "fair" is acceptable.
10. *Arithmetic.* Either "good" or "fair" is acceptable. Turn down those marked "poor."
11. *Motor Dexterity.* Preferably those rated "good."

Of course, the final interpretation of all findings becomes an individual matter, for which fixed and written standards cannot be set, and numerical ratings of the entire study not adaptable.

The above is the kind of an outline that the interviewer is to have in mind as a mold into which she seeks to fit the applicant for the job of cashier. We have developed the same sort of standards and specifications for other jobs within the store.

Summing Up the Data as a Basis for Diagnosis: It may be seen from the foregoing outline of methods which should be employed in conducting the examination of an applicant for a job, that a fairly careful and well-thought-out technique is desirable, if we are going to evaluate the really

important factors involved in the individual's success as an employee.

The interviewer's genius in selecting the right sort of people will frankly depend upon her ability to sense the important issues, as she brings together the various facts gleaned from the *personal history,* the *personality study,* the *home inquiry,* and the *psychological examination,* into her brief and clear summary of the case. Sound judgments and accurate predictions cannot be accomplished in the twinkling of an eye. A routine systematic procedure that involves a critical inquiry into every phase of the whole examination, and a thoughtful balancing of every factor that goes to make up the final picture of the total individual, develop in the interviewer what may be called a diagnostic acumen.

She is concerned fundamentally with making a prognosis, or outlook, in the case of each applicant. Her own mental attitude is quite important, and essentially different from that which she assumes to the individual she has already employed and is following up, in her efforts to adjust to the job. In the former instance, she must remove herself from any emotional attachment that may interfere with her judgment, while in the latter instance she may very well allow sympathy and personal interest to play a part, as they sometimes will drive her to harder work in preventing or overcoming maladjustments that lead to resignations or lay-off.

Of course, her ability to group together all the important facts or symptoms and make a diagnosis will depend upon her knowledge of human behavior in its abnormal as well as normal aspects, and her experience in applying such information in connection with actual work situations. In the final analysis, she shows her genius in the ability demonstrated in summing up and evaluating the data she has obtained.

Follow-up on New Employees: The follow-up and adjustment end of employment work becomes, to our mind, probably the most fundamental phase of the interviewer's work. The lack of a routine, systematic, and well-planned follow-up program is, in our opinion, one of the greatest shortcomings in present-day employment technique. We have found nowhere in personnel routine a procedure that at all measures up to what could reasonably be accomplished in this direction. And yet, the largest percentage of turnover, it is generally agreed, occurs during the first three or four weeks after employment—that critical period during which the new employee will naturally find it difficult to adapt himself to his new job environment. It should be obvious that this is the time for close scrutiny and the sort of helpful aid that is definitely based, not upon a guess of what the problems are in a given case, but a reasonable knowledge of the actual situation, and the individual personal issues that underlie potential work maladjustments.

Securing people who are potentially "fairly good" is not a seriously difficult task in employment technique. But developing and adjusting them, and finally retaining them, is another matter. Here is a responsibility that is distinctly a concern of the Employment Department, as we shall point out later on.

Many issues that bring about work and personality maladjustments are already present and must necessarily be present at the time of hiring. For we have made quite clear the impossibility of our ever being able to secure what may be classed as absolutely "good" material for every job; there is not enough to go around. The great majority of our new employees will have to, in the final analysis, be rated as only "fair" material; a small proportion will be distinctly "good" high-grade stuff. Our interviewers will recognize and fully assess these matters,

and in her close follow-up will bear in mind the adaptabilities and disabilities of each individual, and the potentialities for failure that may lurk in many a fairly promising employee. She will understand these matters and seek to adequately and effectively deal with each case, in order to forestall resignations, drops, and lay-offs. For this is the road to the reduction of turn-over, and not through dependence alone upon correct selection at the time of employment.

This is a prevention program, in which the reduction of work failures is largely brought about through an intensive follow-up and adjustment régime, immediately following upon employment and placement. A program that requires a change of emphasis from a hypothetically perfect hiring technique in selecting just *exactly* the right person for each job, into a developing and adjusting technique of improving human individuals and making them of greater value to themselves, their employers, and the community in which they live. This is much cheaper and certainly more profitable from a human viewpoint than the simple hiring and firing policy so commonly in use.

Upon whose shoulders shall fall the responsibility for this follow-up program? It is our belief that the interviewer, who has originally diagnosed the work potentialities in each case, who has gone over every phase of the applicant's qualifications and disqualifications for the job in question, and who understands the peculiar problems from a personnel viewpoint presented by each personality she has employed, is the one person best equipped to follow up routinely and intelligently, with a view to adjustment work in the case of each new employee. Her knowledge, secured at the time of employment, relating to individual and personal factors involved in work adjustment, that may lead to success or failure, will enable her to anticipate maladjustments, to detect early difficulties,

and often prevent actual separation of the individual from the job.

It must not be thought, however, that the interviewer will have either the time or the equipment to make an adequate psychiatric analysis and undertake anything like satisfactory treatment work on problem cases, particularly problem cases of the more complex types. Nor must it be felt that with the application of this technique we will no longer have any problems in the store. We have here exactly the same situation that we would have following a careful and thoroughgoing physical examination régime, used as a basis for employment. Ruling out the physically handicapped does not imply that those that are accepted are never going to have any disturbances in their health. It is quite likely that hospital work will continue to increase, despite the perfection of the initial employment physical examination.

People will become mentally ill under stressful situations despite the fact that they have in the past been usually well adjusted. Personality difficulties, loss of interest —due to serious mental conflicts—anxiety states, irrational reveries, etc., will develop in people who previously had never presented such problems.

The value of our technique, here discussed, is not in its provision for the interviewer to handle these more serious disorders of the personality and endeavor to treat them, or to just recognize them and have the individuals laid off, as is now so commonly done, but to see the significant treatment possibilities in each case, to detect such types of cases throughout the store. Much in the way of actual psychiatric treatment and prevention may be accomplished by early reference to the psychiatrist, for a well-rounded study and treatment régime.

All of our work proves that, through catching these maladjustments early in the employee's store career, and set-

ting in motion the type of adjustment machinery with which we are now equipped, we will cut down enormously on our turnover problems, and will raise the production capacity of otherwise potentially problem cases.

It is important that we get a clear understanding of the real values that are to ensue from a properly organized follow-up system. These values are not to be seen alone in the adjustment of the new employee, for the interviewer herself becomes the greatest beneficiary.

It becomes possible now, for the first time, to see her diagnostic ability directly put into practice. For now she is able to witness the results of her initial judgments and secure a self-criticism on her diagnostic technique.

There can be no growth in diagnosing the work adjustment and possibilities of applicants, unless the diagnostician has a chance to check up on her errors and mistakes, and unless she is able to secure a continually better insight into the problems furnished by the job environments for which she is employing. This self-criticism and technique analysis, plus the additional information about the department and its needs, will always furnish the interviewer a fresh and growing approach to her problem, and tend to render her work more professional.

Record-keeping: Good records must become the heart of our case work. There is no real growth without orderly, systematic, and well-kept records on each and every case. That the interviewer should have some well-planned method of recording certain detailed information about each individual she employs—what are the outstanding problems and what happens to them—if she is really to do effective work, is simply to elaborate the obvious.

It is desirable that the method adopted be as simple and as free from unnecessary details as possible. It is out of the question to go into the case from the same thoroughgoing angle that the psychiatrist has to employ in un-

raveling problem cases and thus to keep a detailed case record on each case for purposes of research work into the causes of maladjustments.

The nature of the record employed by the interviewer is to be thought of more as a simple card on which certain essential data that will guide her concerning her case will be placed.

When an applicant is employed, the findings in the particular case, including the psychological data and all of the essential facts obtained in the clinical interview, should be recorded in a few words on the "record card" that is to be kept by the interviewer on her own desk. Also she should record on this card all of her follow-up data on the individual. She should also keep a loose-leaf notebook in which she will write in more detail the information she secures in her follow-up work on the case, so as to guide her during her period of contact with the new employee. This information, naturally, cannot be placed on the record card, except in a most symbolic or abbreviated form.

On the first line of the card is placed the new employee's name, department disk, and date employed. Then on the left-hand side of the card the psychological and clinical interview data, such as I. Q. speed, accuracy, arithmetic, motor dexterity, filing, and whatever tests may be used for the particular job in question; then the age, schooling, work, personality, home and other information, as well as outstanding health problems or physical handicaps, etc.

The follow-up data is placed on the back of the card. This should include brief mention of the dates of her own follow-up, together with reference to any very outstanding information. It is important that she secure information from the divisional teacher in the Training Department as to the results of training, and in fact start her follow-up with this information which she secures from the Training Department.

The follow-up should be regular and systematic and should continue uninterruptedly until the interviewer is sure of the adjustment of her case.

Below is given a suggested arrangement for a record card:

NAME	NATIONALITY	DATE EMPLOYED	SALARY	DEPT.
DATE OF BIRTH / HEIGHT / EDUCATION				
WORK HISTORY			APPEARANCE	
HEALTH PROBLEMS				
HOME AND LIVING CONDITIONS	JOB INTEREST / RATING G F P ☐ ☐ ☐		TESTS	

PERSONALITY			
ALERT	SELF-CONFIDENT	INSIGHT	
RESPONSIVE	SELF-CONSCIOUS	INTEGRATION	
CONVINCING	NERVOUS	AMBITION	
AGGRESSIVE	CONTACTS	POISE	
SELF-EXPRESSIVE	STABILITY	PATIENCE	
	REALITY	ATTITUDE	

Periodic Analysis of Work: At least once every six months there should be a careful stock-taking—a statistical evaluation of the work done—a rigid scrutiny of the results achieved.

Every single case should be gone into and the final status determined. It should be the purpose of the interviewer to analyze thoughtfully the material in terms of each individual employed, as well as the entire group, from a statistical viewpoint. She would then be able to clearly understand and interpret significant trends, bring out the weaknesses in her methods, and profit by the mistakes she had made.

There is no other such satisfactory means of growth than that obtained through a periodic analysis of one's own work.

Conclusion: We have in the preceding pages given a very brief outline of a guide to the employment interviewer, based upon well-tried-out methods of studying human behavior.

We have suggested an employment procedure that is fundamentally clinical in nature and that seeks through an application of medical, psychological, psychiatric, and social technique to discover and evaluate the essential factors underlying the individual's life adjustments, to prognose his work potentialities, and to improve his ways of meeting job and other life situations. It is out of the question to hope that in any mere brief discussion of this nature we can do more than call attention to fields of knowledge that should be carefully investigated by the employment interviewer in her search for information and training. She should read assiduously and study thoroughly the psychiatric literature. But then she should constantly grow through her close check-up and evaluation of her own work.

It is not to be expected that she will come into the possession of wisdom any differently from the slow and laborious channels pursued by all students who have to practice their art in order profitably to learn.

CHAPTER VIII

Qualities Distinguishing Good and Poor Sales Clerks

A Suggested Sales Employment Procedure for Mercantile Establishments: The primary object of this chapter is to formulate for daily practical use in employing sales clerks, some definite criteria and guiding principles on the basis of which good and promising sales material may be sifted from the large host of applicants seeking employment.

We need to know something of the individual and personal factors that make for success in selling in a department store and something of the causes of failure as well as the specific personnel requirements of certain sales jobs and certain sales-job environments.

Of first consideration is the question of whether or not there is a recognizable "sales type of personality" that can be adequately determined through a preemployment inquiry. This we wished to throw some light on through our psychiatric study. If we found such, we wanted to make out personnel qualifications for the employment of future sales people. It was obvious that such a study would disclose facts not only bearing upon the general type of personality characteristics of good sales clerks, but, on specific job requirements making for particular specialisms within the group.

Further, such a clinical study of several hundred employees would disclose facts of considerable value to management in connection with the proper placement or

treatment or lay-off of individual problem sales clerks, and would throw light on the responsibility for such poor producers being in the organization. How much was traceable to an inadequate employment procedure, how much to the lack of individualized training, how much to departmental conditions that could be modified and made more satisfactory.

As a matter of fact the study did go into these particular problems which are largely local and intramural in nature, and will not be taken up here.

The entire investigation covered a study of two different groups. The first group consisted of 284 sales clerks, selected on the basis of their selling cost or production rating. This is determined from the relation between their weekly earnings and their total sales, and gives an estimate of what is termed their "cost of selling." Those who were "high-cost cases" were considered by the management as liabilities to their department; while those who were "low-cost cases" were considered assets. We determined the high-cost and low-cost group by striking an "average selling cost" for the department as a whole and then eliminating the middle 50 per cent of the cases around the average. This left the upper 25 per cent, which were designated high-cost cases; and the lower 25 per cent, which were designated low-cost cases. In this way we used the store's standards of production value in selecting our cases and gave to each individual a medical, psychological, and psychiatric examination.

The second group consisted of 100 sales people chosen by general agreement of floor superintendent, department manager, and training representative, as representing the best and worst sales clerks in typical departments of the store. The judgment of "best" and "worst" was not based alone on selling cost, but included other criteria such as stock-keeping, attitude toward customers, attitude and

behavior toward associates, toward superiors, toward store rules and regulations, etc.

Findings:

Age. Three times as many employees under twenty-one years of age were found in the high-cost-of-selling group as were found in the low-cost group. This is as would be expected; the young, immature, and undeveloped sales clerk is not commonly effective in selling goods. Twice as many employees over fifty years were found in the high-cost-of-selling group as were found in the low-cost group. Problems in the way of health, attitude, or personality changes readily develop in those over fifty years, rendering them personnel problems. Old clerks and young clerks are liable to be poor clerks from the standpoint of their production records. Seventy-five per cent of the low-cost-of-selling group, the assets of the store, were between twenty-five and fifty years of age. While only 50 per cent of the high-cost group were at this desirable age period.

Age undoubtedly is a matter of some importance in predicting the future production capacity of an individual applicant for a sales position. It is interesting, in noting the trend of our employment work, to find that 90 per cent of the clerks we have employed within the last twelve months have been under forty years of age and none were over fifty years. The question of age restrictions for employment is a mooted one, and in the final analysis should in all fairness to the applicant come down to individual cases rather than general rules against employing people over a certain age limit.

Practically the same conclusion could be reached as to length of service. Those under one year and over ten years furnished a larger proportion of liabilities than those between these age periods. Twice as many cases

over ten years' service were found in the high-cost-of-selling group as were found in the low-cost group. Seventy-five per cent of the low-cost group had been in the store more than one year and less than ten years.

Schooling. The following table shows the schooling received by these two groups—as compared with the entire force of the store:

TABLE I

SCHOOLING

Grade reached	Low-cost group	High-cost group	Entire sales force
	per cent	per cent	per cent
Grammar grades	60.5	59.0	47.7
1–2 years H. S.	18.3	23.2	18.5
3–4 years H. S.	16.1	11.2	15.8
College	5.1	6.6	18.0
	100.0	100.0	100.0

It would seem from these figures that there is no definite relationship between the amount of schooling a sales clerk has received and his selling-cost rating. It is interesting that about 18 per cent of the entire sales force had been to college, and 3.2 per cent had graduated. But our selling-cost table indicates that only 5.1 per cent of the low-cost group and 6.6 per cent of the high-cost group had been to college—not one-third the frequency to be expected. This would mean that the college people, as a whole, fall into the average selling-cost group.

There is a decided relationship between schooling and length of service. Of those individuals who had been

here longer than ten years, none had had college education; an insignificant number had had high-school education, while approximately 90 per cent never got further than the grammer grades.

Of those who had been here from one to ten years, 50.5 per cent came from the grammar-school group, 40 per cent had had high-school education and 9.5 per cent had been to college; of those who had been here less than one year, only 28 per cent stopped in grammar school, whereas 46.5 per cent had had high-school training and 25.5 per cent had been to college. It can be seen from the above figures that the new employees are more carefully selected on the basis of their education than they had been in the past.

Sex. 23.3 per cent of the entire sales force are male, while 76.7 per cent are female. We find little difference in the two groups, from the relative frequency in the store as a whole.

In the low-selling-cost group, 21 per cent were male and 79 per cent were female. In the high-selling-cost group 20 per cent were male and 80 per cent were female.

Marital Status. The marital status of 2,738 sales clerks is as follows: 61 per cent are single, 33 per cent are married, and 6 per cent are widowed. Our low-selling-cost group, compared with the high-selling-cost group, is shown in Table II on the following page.

The low-cost-of-selling group contains a much smaller percentage of single sales people than is found among the sales force as a whole. While the high-cost-of-selling group contains more single people than is to be expected.

It is obvious that the widowed group contains a larger number of low-cost cases than would be expected from the figures of the store as a whole, and an exceedingly small number of high-cost cases.

TABLE II

Marital status	Low-selling cost	High-selling cost	Entire sales force
	per cent	per cent	per cent
Single	52.8	65.3	61.0
Married	25.0	23.2	33.0
Widowed	15.7	3.5	6.0
Separated	6.5	8.0	
	100.0	100.0	100.0

Home Problems. In our study of cashiers, we have found that serious home problems affected unfavorably the work production of the employee. Mental reverie and worry over difficulties at home either slowed up production or tended to cause errors. This did not seem to be a very important factor in these two groups; at least, the presence of home troubles did not affect the selling cost to a sufficient extent to warrant considering it a factor.

Nineteen and two-tenths per cent of the low-cost group had financial troubles at home, while 17.6 per cent of the high-cost group had such financial difficulties; 9.2 per cent of the low-cost group had sickness at home, while 5 per cent of the high-cost group had sickness at home. In the case of 4 per cent of the low-cost group there was friction at home, while in the case of 7 per cent of the high-cost group there was friction at home. Thirty per cent of the low-cost group had dependents, while 28 per cent of the high-cost group had dependents.

Selling Experience. Sixty per cent of the sales force were classified as having extensive selling experience. We arbitrarily called more than three years' selling experience

as "extensive." Thirty-one per cent of the sales force were classified as having had "average" selling experience. We arbitrarily called from six months to three years "average" experience. By limited experience we mean less than six months at selling. Nine per cent of the entire sales force we classified as having "limited" selling. The following table will give some idea of the selling experience of our high-cost-of-selling group, compared with the low-cost-of-selling group, and with the entire sales force of the store:

TABLE III

Selling experience	Low-cost group	High-cost group	Entire sales force
	per cent	per cent	per cent
Extensive	68.3	60.0	60.0
Average	17.6	22.3	31.0
Limited	14.1	17.7	9.0
	100.0	100.0	100.0

It is apparent that the low cost of selling group contains a few more individuals with extensive selling experience than is found amongst the sales force as a whole; while the high cost group contains just the proper proportion of individuals with extensive selling experience.

Selling experience, itself, is probably not a vital factor in predicting the selling cost of the individual applicant.

Knowledge of Merchandise. We secured the ratings from department heads and training representatives on the merchandise knowledge possessed by individuals in these two groups and the following table shows the results of these ratings:

TABLE IV

	Low-cost group	High-cost group
	per cent	per cent
Good	76.0	74.0
Fair	21.0	20.0
Poor	3.0	6.0
	100.0	100.0

It is apparent that knowledge of merchandise, as estimated by those in charge of the work of these sales clerks, was not an important factor in their standing as a high-cost-of-selling employee or as a low-cost-of-selling employee.

Intelligence. We made a survey of the intelligence level of 500 sales clerks, being the "run-of-the-mine" of certain selected departments in the store, with the results as represented in the following table:

TABLE V

Intelligence	No.	Per cent
Superior (I. Q. above 110)	27	5.4
Average (I. Q. 90–109)	203	40.6
Dull average (I. Q. 80–90)	172	34.4
Subnormal (I. Q. 70–80)	78	15.6
Borderline mental defect (I. Q. 60–70)	20	4.0
Mental defect (below 60)	0	.0
	500	100.0

It is seen that 80 per cent of the sales force, four out of every five sales clerks have an intelligence quotient above 80, while a very small number of the clerks (5.4 per cent) were of superior intelligence.

The following table will present a comparison of the low cost and high cost selling groups with each other, and with a large body of sales people from the standpoint of general intelligence.

TABLE VI

Intelligence	Low-cost group	High-cost group	500 cases
	per cent	per cent	per cent
Superior	5.6	4.2	5.4
Average	46.4	36.6	40.6
Dull average	33.8	36.7	34.4
Subnormal	11.3	19.6	15.6
Borderline mental defect	2.9	2.9	4.0
	100.0	100.0	100.0

It is apparent that 52 per cent of the low-cost group were of average or superior intelligence, while only 40.8 per cent of the high-cost group received such classification. Fourteen and two-tenths per cent of the low-cost group were of subnormal or defective intelligence, while 22.5 per cent of the high-cost group were of subnormal or defective intelligence. There is a positive trend seen in the collection of a larger proportion of individuals with higher I. Q.'s in the low-cost-of-selling group, and a larger proportion of individuals with low I. Q.'s in the high-cost-of-selling group. General intelligence as measured by the

psychological test, is a factor to be considered in employing sales people, but not such an outstanding factor as personality, which we will discuss later on.

Special Tests. We have given to each individual studied a series of psychological tests, including motor-speed tests, accuracy tests, judgment tests, the Downey-will-temperament tests, the Pressey tests, the Kent-Rosanoff association tests, the social intelligence tests, merchandise-information tests, etc., but have gotten no correlations with selling cost of sufficient importance to warrant using them as a routine procedure. However, the number-finding test which we have successfully used as a motor-speed test, in examining applicants for cashiering and marking jobs, showed 55.0 per cent of the low-cost group as receiving a performance rating of good, and only 40.0 per cent of the high-cost receiving such a rating.

On the whole, it appears that other than the general intelligence and the arithmetic tests, we have little in the routine psychological procedure at the present time to offer toward an employment technique. All of our work has gone to show, as we will later bring out, that the largest issue in successful salesmanship is a personality one, and this is better evaluated through the psychiatric method than the psychological.

Physical Findings. To each one of these 284 sales employees a careful physical examination was given, and a rating, based upon the condition found, was made according to four classifications—A, B, C, D.

"A" represented those individuals in good vigorous physical condition and the best of health record; "B" those with minor physical conditions or defects which did not materially influence the general health of the employee; "C" medical cases, definitely needing treatment, which, if uncorrected, would make the individual a liability; "D" physical conditions which were of such serious nature as

to warrant the lay-off of the employee as being a real liability to the organization.

The following table shows our classification of the low-cost and high-cost-of-selling groups, according to the above ratings:

TABLE VII

Medical rating	Low-cost group	High-cost group
	per cent	per cent
A	18.2	20.6
B	64.7	56.7
C	15.9	22.7
D	1.2	0.0
	100.0	100.0

It is interesting that an insignificant proportion of cases were found in such physical condition as to warrant immediate lay-off—but strangely these cases were in the low-cost group. Approximately 20 per cent of the entire group were urgently needing medical treatment. Their physical condition was called to their attention, and in each case advice and treatment were given. It is an important matter, we believe, to insure the health of the employee of an organization by annual, or semiannual, health surveys of departments. This enables the medical staff to early detect diseases and conditions that later make for chronic invalidism and render the individual an economic loss.

While a larger proportion of the "C" cases were found in the high-cost-of-selling group, still it was not so marked as to justify us in believing that medical conditions, as determined through the ordinary physical examination, are

factors of great importance in the selling-cost rating of the sales clerk.

Thirty-six and six-tenths per cent of the 284 employees were considered free from any medical problems. The other 63.4 per cent of cases showed the following:

TABLE VIII

Physical conditions	*Number*
Overweight	24
Underweight	29
High blood pressure	20
Low blood pressure	12
Needing dental care	27
Chronic stomach trouble	11
Ear conditions	6
Eye conditions	32
Menstrual difficulties	18
Heart trouble	12
Respiratory disturbance	4
Varicose veins	5
Suspected epilepsy	1
Rheumatism	7
Diseased tonsils	30
Arterio sclerosis	1
Hernia	5
Thyroid disease	9
Paralysis agitans	1
T. B. suspect	2
Anemia	4
Constipation	9
Fallen arches	10
Tumor	1
Diabetes	1
Dislocated hip	2
Hemorrhoids	1
Fatigue	17
Miscellaneous	16

No relationship with cost of selling could be established in most of these conditions. For instance, the one case of paralysis agitans (a serious nervous disease) was a low-cost-of-selling case, and a particularly fine salesman. The case of suspected epilepsy was also in the low-cost-of-selling group. The case of arterio sclerosis was a low-cost-of-selling case; of the two T. B. suspects, one was a low-cost-of-selling case and one was a high-cost-of-selling case; of the four of anemia, two were in the low-cost and two were in the high-cost group. These disease conditions, however, will all in time so seriously affect the health as to show itself in a lowered production record.

However, one thing did stand out, and that in relation to the underweight cases. Twenty-two out of the twenty-nine were in the high-cost of selling group—three-fourths of the cases. Of course, what happens in underweight is quick fatigue, while the effects of fatigue on the personality are too obvious for discussion. Wherever underweight and low blood pressure were found together, we also found low production and commonly found fatigue. (It is interesting to note that 48 per cent of a group of sixty-one low-blood-pressure cases, on whom we made a special study, were found to be marked cases of underweight. It is further interesting that twice as many cases of underweight and low blood pressure were found among female sales clerks as among male. Where high blood pressure was found in a special study of 300 cases that we later made, we discovered that high blood pressure was three times as frequent among unsatisfactory, as among satisfactory sales clerks.)

Personality. It is quite impossible in any such discussion to present an adequate picture of the personalities of these two groups of sales clerks. It may be feasible to show something of the nature and extent of the differ-

ences prevailing among them with regard to certain given traits, or to present tables showing the frequency of mental illnesses, "nervous disturbances, or personality disorders," or in individual cases to illustrate typical configurations or groupings of traits in good and poor sales clerks. But even with this we cannot in any single instance get that estimate of the "integrated whole," that sum total of the habit dispositions and tendencies to react to one's environment, that constitutes the personality make-up of an individual. So that any general statistical endeavor to present the personality factors (as we understand them) involved in "selling goods" must necessarily be inadequate. Bearing this in mind and being fully aware of the fact that it is only in individual case records where one can get a longitudinal view of a career, that the personality can be clearly visioned and properly understood, we are prepared to present the following data. It should be borne in mind that the diagnosis in connection with the following traits and personality characteristics and types was made by a psychiatrist after a very careful study in the case of each individual.

It can be seen that the low-cost-of-selling group is pre-

TABLE IX

PERSONALITY TYPES

	Low cost	High cost
	per cent	per cent
Extrovert	54	11
Ambivert	36	49
Introvert	10	40
	100	100

dominantly composed of individuals free from introverted tendencies. One can easily understand why the extroverted employee makes the best sales clerk, for the introvert—the daydreamer, the introspective, mentally gossiping chap who suffers from a shut-in personality—is not going to make good contacts with people or be quick and effective in serving customers. Nevertheless, the introvert may be well dressed, make a good general appearance, be well educated, and have a splendid knowledge of merchandise. In fact, he may be an authority on leathers, or pictures, or such, but the introversion of his personality affects seriously his personal relations with customers —his interest in them and understanding of their viewpoint. He does not get along particularly well with people; he does not work well in team work.

On the other hand, the extroverted personality makes quick external adjustments, deals well with people, does not over-personalize situations, is free from handicapping inhibitions, uncertainties, and doubts, and finds in the selling situation an ideal opportunity for the exercise of his talents. He enjoys the opportunities for contact with people, which is one of the reasons for his success.

Motor Characteristics. We have here classified our cases into three main types: the active group (those with average energy output); the hyper-active group (those who are over-active, are rapid and quick in their movements, are so-called "speedy"); and the hypo-active group (the under-active, slow-moving, and frequently stolid type):

It can be seen that 94 per cent of the low-cost group were either active or over-active people, while only 53 per cent of the high-cost group received this classification. The most important factor in this table is the relatively high frequency of under-active personalities among the high-cost-of-selling group. Slow and under-active individuals are not likely to become good producers, partic-

TABLE X

Motor characteristics	Low-cost group	High-cost group
	per cent	per cent
Hyper-active	10.0	6.3
Average energy output	84.0	47.0
Hypo-active	6.0	46.7
	100.0	100.0

ularly when it comes to selling in a large department store.

Aggressiveness. Effective salesmanship demands aggressiveness—that ability to go after and secure sales. Aggressiveness in the salesman is a characteristic of the first order of importance. To be sure, it should be tinctured with courtesy, tact, a convincing and agreeable manner, and a knowledge of merchandise. The following table shows the frequency of this characteristic in the two groups:

TABLE XI

AGGRESSIVE AND NON-AGGRESSIVE

Traits	Low-cost group	High-cost group
	per cent	per cent
Aggressive	66.0	45.0
Non-aggressive	34.0	55.0
	100.0	100.0

It can be seen that the great majority—approximately two-thirds of the low-cost cases were rated as aggressive in personality make-up, while more than half of the high-cost group were regarded as non-aggressive in their personality.

Other Traits. Certain other traits which manifested themselves in our study and which seemed important considerations are seen in the following table:

TABLE XII

Traits	Low-cost group	High-cost group
	per cent	per cent
Convincing	65.8	46.0
Unconvincing	34.2	54.0
Ambitious	69.6	52.7
Unambitious	30.4	47.3
Responsive	65.2	53.0
Unresponsive	34.8	47.0
Alert	75.2	52.3
Detached	24.8	47.7
Pleasant	84.8	78.0
Neutral	9.8	12.6
Glum	5.4	9.4

On the whole, it is apparent that the low-cost-of-selling cases are by all odds more frequently alert, ambitious, convincing, and pleasant than the high-cost employees.

In a way, one could easily say that much of the in-

formation elicited above is little more than the elaboration of perfectly obvious facts. Nevertheless, we have not been impressed with the fact that these definite issues of the personality make-up have received the vitally important consideration, as basic information in the employment technique, that they should receive.

Personality Disorders. One may think of the personality in terms of health, and view disturbances or disorders as an illness the manifestations of which are responsible for failures of adjustment to life situations, the well-balanced, well-adjusted, well-integrated, stable personality being the average normal condition of mental health. The maladjusted, poorly integrated, unstable personality, handicapped by conflicts and complexes, faulty attitudes, irrational thinking, pessimistic reverie, etc., representing poor mental health, mental illness, and personality disorder.

Viewing these employees from this standpoint, we find the following:

TABLE XIII

Personality disorders	Low-cost group	High-cost group
	per cent	per cent
None	57.7	50.0
Mild	42.3	44.0
Serious	.0	6.0
	100.0	100.0

It is seen from the above table that 6 per cent of the high-cost-of-selling cases and none of the low-cost group

suffered from serious personality disorders. These represent individuals whose relationship to life in general is faulty and unsuccessful, whose personalities are dominated by unhealthy and in many instances pathological conditions.

In every field of work that we have as yet investigated we have found that serious personality disorders so handicap the worker as to almost invariably affect unfavorably his production.

Many of the conditions from which such people suffer are often termed, "functional nervous disorders," "industrial fatigue," "nervous breakdown," "nerve exhaustion," and the like. Ordinary medical treatment at the physical level serves no good purpose and frequently fixates all the more firmly their mental invalidism. These individuals are all psychiatric cases and may recover under proper psychiatric treatment, if recognized early enough. (Case reports illustrating these problems are presented in the chapter dealing with "Job Misfits"—their study and treatment.)

General Appearance. General appearance has been given a very important place in the employment of sales people. Our study of these individuals did not indicate that it was closely related to the selling-cost rating of the employees. (See Table XIV.)

Obviously job interest and selling technique are highly correlated with selling cost. Our own figures showed that 67 per cent of the low-cost group gave selling as their major interest, while only 50 per cent of the high-cost group gave selling as their major job interest. Thirty-three per cent of the low-cost group gave merchandise and stock as their major job interest, while 50 per cent of the high-cost group stated they were more interested in merchandise than in selling.

TABLE XIV

Appearance	Low-cost group	High-cost group
	per cent	per cent
Height		
Tall	18.1	24.3
Average	42.0	36.3
Short	39.9	39.4
Weight		
Underweight	16.4	31.3
Average	49.2	36.3
Overweight	34.4	21.0
Dress		
Neat	79.5	89.3
Not neat	20.5	10.7
Good sales appearance	30.3	34.5
Fair sales appearance	55.2	50.0
Poor sales appearance	14.5	15.5

Attitude. Attitude stood out as an important matter, particularly attitude toward customers. Eighty-five per cent of the low-cost group had a good attitude in their customer relationship, while only 60 per cent of the high-cost group were so rated.

Other Considerations. Attendance and disciplinary problems were not found any more frequently in one group than in another.

The high-cost-of-selling group contained a higher proportion of individuals of "non-sales value." (One refers here to interest and care of merchandise, help to other

clerks, taking pains with difficult customers, and other departmental service.) Eighty-three per cent of the high-cost group were rated as having good non-sales value, while only 70 per cent of the low-cost group were so rated.

Summary. The low-cost-of-selling group contained only one-third as many people under twenty years of age as did the high-cost-of-selling group; while it contained twice as many people between the ages of thirty-one and forty as did the high-cost group. Young people under twenty years are not, in general, high-grade producers as sales clerks. The ages between twenty-five and fifty are particularly good ages for selling.

The amount of education an individual had received, as well as the sex of the employee, did not play any important part in his or her selling cost, but it was definitely related to his or her length of service.

Single employees were not found in the low-cost-of-selling group as commonly as their frequency in the store would justify; while the high-selling-cost group contained more single employees than was the average for this group.

Widowed employees were found five times as frequently in the low-cost group as in the high-cost group.

Employees with extensive selling experience were found a little more frequently in the low-cost-of-selling group than was average for the store.

Attendance and disciplinary problems were not found any more frequently in one group than they were in the other.

The high-cost-of-selling group contained a larger number of individuals with non-sales value to the store than did the low-cost-of-selling group.

Intelligence probably plays a part, if not a very large one, in the selling cost of sales clerks, inasmuch as the low-cost-of-selling group contained a larger proportion of

individuals with high I. Q.'s, and the high-cost-of-selling group contained a larger number of low I. Q.'s. Eighty per cent of the entire sales force have I. Q.'s above 80. Ordinarily we should not select applicants with intelligence quotients below this level.

We found that initiative, job interest, attitude toward customers, and selling technique were vital matters in selling, and that the low-cost-of-selling group, as a matter of course, ranked much higher than did the high-cost-of-selling group in these characteristics.

Our data show that the low-cost-of-selling employee is predominantly an extroverted, active, alert, aggressive, convincing, ambitious, responsive, pleasant, and well-integrated individual, while the high-cost-of-selling employee is more frequently likely to show such characteristics as introversion, under-activity, tendency to mental reverie, lack of ambition, unresponsiveness, instability and the like.

Personality disorders, serious mental maladjustments, when found, were likely to be among the high-cost-of-selling employees.

The general appearance of the low-cost-of-selling group was not so markedly different from the high-cost-of-selling groups to distinguish them in any definite particular, though tall individuals were found more frequently in the high-cost-of-selling group.

Our figures would indicate that about 20 per cent of this entire group were in need of some medical treatment, and that cases of marked underweight when associated with low blood pressure were likely to be high-cost-of-selling cases.

Comparing Fifty "Best" with Fifty "Worst" Sales Clerks: In our previous discussion we have dealt statistically with a psychiatric study of a series of sales clerks, to determine whether or not the selling-cost ratings—

which are used by the store as important criteria for determining the sales clerk's value—are sufficiently correlated with any of the findings in our general clinical inquiry to make the latter of predictive value in employment work.

Important trends stood out that would lend weight to certain phases of the clinical inquiry, as being of diagnostic value in determining the possible selling cost of an applicant before employment.

While the selling-cost rating of an individual sales clerk furnishes valuable criteria for management in determining the production ratings of the employees, it nevertheless is not an absolute check, by means of which the value of the worker can be universally told. It certainly is not so simple as to warrant considering all low-selling-cost cases good sales clerks, and all high-selling-cost cases poor sales clerks. Low-selling-cost may be found in mediocre individuals, particularly favored with a splendid location. Or low-selling-cost may be attributable to the fact that the sales clerk is a "grabber" and, though she runs good books, it is nevertheless accomplished at the expense of the other clerks and the morale of the department. High-selling-cost may be found in clerks who show great loyalty to the store, are unusually careful with the stock, are painstaking with difficult customers, and devote as much time and courteous attention to those who are "merely looking" as to those customers who are "buying."

Having these facts clearly in mind, we were convinced of the inadequacy and uncertainty of conclusions as guides for future employment that were based purely upon selling-cost ratings. So that we have taken another group composed of fifty of the "Best" sales clerks found in certain departments, and compared them with fifty of the "Worst" sales clerks found in these departments.

Sex. There were nine men and forty-one women in each group—18 per cent males and 82 per cent females.

Age. Five times as many people under twenty years were found in the "Worst" group as were found in the "Best" group, and six times as many people over fifty years were found in the "Worst" group as were found in the "Best" group. Seventy-eight per cent of the "Best" sales clerks, approximately four out of every five individuals, were between twenty-five and forty years of age.

Schooling. While 47 per cent of the entire sales force of the store never got further than grammar school, 60 per cent of the "Best" sales clerks never got further than the grammar school. It was interesting that 40 per cent of the "Worst" sales clerks had had high-school education and 10 per cent had been to college. Only 4 per cent of the "Best" sales clerks had been to college.

Marital Status. The single employees contributed a smaller proportion to the "Best" sales clerks than was to be expected, and a larger proportion to the "Worst" sales-clerks group. Widowed employees were far more frequent in the "Best" group than in the "Worst."

Home Problems. Eight per cent of the "Best" sales clerks had more or less serious home problems, while 24 per cent of the "Worst" sales clerks had such home problems.

Selling Experience. Seventy-eight per cent of the "Best" sales clerks had extensive selling experience, and 72 per cent of the "Worst" sales clerks had extensive selling experience; 22 per cent of the "Best" clerks and 24 per cent of the "Worst" sales clerks were classified as having had average sales experience. The degree of experience as a sales clerk did not seem to be an important, determining factor in the classification of these employees as "Best" and "Worst" clerks.

Intelligence. We have compared, in the following table, the intelligence classification of our "Best" and "Worst"

sales clerks with each other and with an unselected group of 500 sales clerks.

TABLE XV

SHOWING INTELLIGENCE AS RELATED TO THE CLASSIFICATIONS "BEST" AND "WORST" AMONG SALES CLERKS

Classification	"Best"		"Worst"		500 sales clerks	
	No.	Per cent	No.	Per cent	No.	Per cent
Superior	5	10.0	1	2.0	27	5.4
Average	21	42.0	17	34.0	203	40.6
Dull average	18	36.0	14	28.0	172	34.4
Subnormal	5	10.0	17	34.0	78	15.6
Borderline mental defective	1	2.0	1	2.0	20	4.0
	50	100.0	50	100.0	500	100.0

Forty-six per cent of the entire sales force were of average or superior intelligence, while 52 per cent of the "Best" sales clerks, and only 36 per cent of the "Worst" sales clerks were of average or superior intelligence.

Nineteen and six-tenths per cent of the entire sales force were subnormal or defective in intelligence, while 36 per cent of the "Worst" sales clerks, and 12 per cent of the "Best" sales clerks (only one-third as many), were of subnormal or defective in intelligence.

It can be seen that as far as intelligence is concerned,

the same trend is noted here as was found in the selling-cost groups—that the "Best" sales clerks tend to collect in the upper intelligence quotients, while the "Worst" sales clerks contain a good number of people with low intelligence quotients. Intelligence plays a part of some little importance in success or failure in selling.

Physical Findings. Each sales clerk received a careful physical examination, with the results as shown in the following table:

TABLE XVI

PHYSICAL FINDINGS AMONG "BEST" AND "WORST" SALES CLERKS

"Best" sales clerks		"Worst" sales clerks	
Nasal obstructions	1	Underweight	9
Antrum disease	1	Serious eye condition	1
High blood pressure	6	Impaired hearing	1
Enlarged tonsils	1	Enlarged ulcerated tonsils	5
Sinus disease	1	Atrophic rhinitis	1
Color blind	1	Non-toxic goiter	2
Underweight	6	Serious dental caries	4
		High blood pressure	7
		Menstrual difficulties	2
		Tachycardia	1
		Heart disease	3
		Varicose veins	1
		Arteriosclerosis	1
		Nephritis	3
		Neuro-syphilis	1

Physical disorders and defects are found rather frequently among the "Worst" sales clerks. For while 78 per cent of the "Best" sales clerks were in good physical

condition, only 40 per cent of the "Worst" sales clerks were in good physical condition.

Personality: Looking at the personality make-up of these employees from a clinical viewpoint, and considering the question of each individual's manner of adjusting to his environment, as to whether it is healthy, purposeful, effective, and redounds to the best interest of the individual himself or herself, as well as to the group, we find that approximately 12 per cent of the entire group of cases (100 sales clerks), showed sufficiently marked defects and difficulties in their personality make-up as to have seriously interfered with their adjustment to life situations in general. All of these cases were in the "Worst" group. Some of these individuals showed definitely pathological conditions.

TABLE XVII

SHOWING PERSONALITY DISORDERS AMONG "BEST" AND "WORST" SALES CLERKS

Disorders	"Best"		"Worst"	
	No.	Per cent	No.	Per cent
None	39	78	11	22
Mild	11	22	27	54
Serious	0	0	12	24
	50	100	50	100

None of the "Best" sales clerks showed serious personality disorders; while 24 per cent, approximately one out of every four, of the "Worst" sales clerks presented suffi-

ciently serious mental maladjustments to warrant urgent psychiatric treatment or lay-off.

It is noteworthy that only one of the individuals suffering from serious personality disorders presented, on a careful medical examination, any abnormal physical findings. None of these cases were rated as good in interest. None were rated as aggressive or convincing. All were introverted and all suffered from conditions that made contact with people ineffective.

We analyzed carefully the careers of these individuals from the job-behavior records that we were able to secure through the careful investigation of our psychiatric social workers, as well as from the clinical case records obtained through the examinations of the psychiatrist and psychologist, and made certain tentative classifications, or ratings, of their personality traits, as seen in the following tables.

It can be seen from the table that extroverts are found almost twice as frequently among the "Best" sales clerks as among the "Worst," and that the "Worst" sales clerks contain four times as many introverts as do the "Best." Furthermore, almost one-half of the "Worst" sales clerks are regarded as hypo-active or underactive personalities, while none of the "Best" sales clerks are so rated.

Three times as many of the "Best" sales clerks as the "Worst" sales clerks were rated aggressive.

The great majority of the "Best" sales clerks were regarded as convincing, while only a negligible number of the "Worst" sales clerks (10 per cent) were so regarded.

It can be seen that 84 per cent of the "Best" sales clerks were responsive, as against 34 per cent of the "Worst," while approximately one out of every four, or 26 per cent, of the "Worst" sales clerks were regarded as distinctly unresponsive. Ninety per cent of the "Best" sales clerks were alert, as against 26 per cent of the "Worst" sales clerks. Twenty-four per cent of the "Worst" sales clerks

TABLE XVIII

SHOWING PERSONALITY TRAITS AND TYPES

Traits	"Best"		"Worst"	
	No.	Per cent	No.	Per cent
Extrovert	21	42	11	22
Ambivert	24	48	19	38
Introvert	5	10	20	40
Hyper-active	14	28	5	10
Active	36	72	24	48
Hypo-active	0	0	21	42
Lively	26	52	13	26
Quiet	24	48	37	74
Aggressive	27	54	9	18
Mildly aggressive	22	44	21	42
Non-aggressive	12	24	19	38
Too aggressive	0	0	1	2
Convincing	41	82	5	10
Fairly convincing	9	18	23	46
Not convincing	0	0	22	44
Ambitious	12	24	4	8
Fairly or indefinite	31	62	23	46
Not ambitious	7	14	23	46
Responsive	42	84	17	34
Fairly responsive	8	16	20	40
Unresponsive	0	0	13	26

TABLE XVIII—*Continued*

Traits	"Best"		"Worst"	
	No.	Per cent	No.	Per cent
Alert	45	90	13	26
Fairly alert	5	10	25	50
Detached	0	0	12	24
Pleasant	46	92	21	42
Neutral	3	6	19	38
Unpleasant	0	0	3	6
Unpleasant at times	1	2	7	14
Initiative				
Good	45	90	5	10
Fair	5	10	23	46
Poor	0	0	22	44
Integration				
Good	34	48	3	6
Fair	24	48	22	44
Poor	2	4	25	50
Purposefulness				
Good	43	86	4	8
Fair	6	12	27	54
Poor	1	2	19	38
Insight				
Good	24	48	3	6
Fair	24	48	22	44
Poor	2	4	25	50
Interest—in job				
Good	47	94	13	26
Fair	3	6	29	58
Poor	0	0	8	16

TABLE XVIII—*Concluded*

Traits	"Best"		"Worst"	
	No.	Per cent	No.	Per cent
Selling	10	20	18	36
Merchandise	8	16	17	34
Both	32	64	9	18
Neither	0	0	5	10
No rating	0	0	1	2
Attitude—toward work				
Good	47	94	11	22
Fair	3	6	28	56
Poor	0	0	11	22
Toward supervisors				
Good	47	94	21	42
Fair	3	6	21	42
Poor	0	0	8	16
Toward other clerks				
Good	44	88	23	46
Fair	6	12	19	38
Poor	0	0	8	16
Toward customers				
Good	46	92	20	40
Fair	4	8	25	50
Poor	0	0	5	10
Sales appearance				
Good	41	82	18	36
Fair	9	18	22	44
Poor	0	0	10	20

were detached, showed evidence of daydreaming and mental reverie, etc. Ninety-two per cent of the "Best" sales clerks were regarded as pleasant and courteous, while only 42 per cent of the "Worst" sales clerks were so rated. Ninety per cent of the "Best" sales clerks showed initiative, as opposed to 10 per cent of the "Worst."

What we call integration of the personality, or unity, or wholeness of the mental life, free from evidence of splitting or marked instability, etc., is an important index to mental health and mental efficiency. It is an interesting fact that 48 per cent of the "Best" sales clerks were regarded as well-integrated personalities, while only 6 per cent of the "Worst" sales clerks were regarded as well-integrated personalities.

Insight and understanding of things as they really are,—the ability to meet issues openly and frankly, and to place oneself at one's true value and in proper relation to reality, is a most valuable characteristic. Forty-eight per cent of the "Best" sales clerks were rated as good in insight, while only 6 per cent of the "Worst" sales clerks received such a rating.

It is obvious that interest in the job at which one finds himself is a vital element in his adequate performance and ultimate success. Ninety-four per cent of the "Best" sales clerks were definitely interested in their job, while only 26 per cent of the "Worst" sales clerks showed good interest in their jobs. Sixty-four per cent of the "Best" sales clerks were interested both in selling and in merchandise, enjoyed both contact with people and care of stock, while only 18 per cent of the "Worst" sales clerks were actually interested in both stock and selling.

Sales appearance is a more important factor in the classification of "Best" and "Worst" sales clerks than it is in the rating of low-cost and high-cost individuals.

Eighty-two per cent of the "Best" sales clerks were rated good in sales appearance, while only 36 per cent of the "Worst" sales clerks were rated good in sales appearance.

Psychiatric Classification: A psychiatric classification of "Best" and "Worst" sales clerks shows the following clinical findings:

TABLE XIX

Psychiatric classification	"Best"	"Worst"
Borderline mental defect	1	1
Neuro-syphilis	0	1
Psychopathic personality	0	13
Psycho-neurosis	5	4
Mild depression	1	0
Senile deterioration	0	4
Inadequate personalities with intellectual handicaps	0	14
Fatigue	1	2
Unclassified personality disturbances	3	8
No abnormal findings	39	3
	50	50

Ninety-four per cent of the "Worst" sales clerks and only 22 per cent of the "Best" sales clerks were found by the psychiatrist to deviate from average normal mental health. This probably more than any other single factor differentiates the "Worst" sales clerks from the "Best." The adjustment difficulties which the "Worst" sales clerks so commonly exhibit at their work are but the expression of personality, intellectual and general bodily conditions

that render such individuals poor personnel risks, unless adjustment is made possible through psychiatric treatment.

Other Information: More than three times as many cases of poor attendance were found among the "Worst" sales clerks as were found among the "best." None of the serious attendance-problem cases showed the normal interest in their jobs and all were rated as exhibiting poor attitude when at work.

There were four mild discipline cases among the "Best" sales clerks, and seventeen disciplinary cases among the "Worst" sales clerks.

All of the "Best" sales clerks were rated as having a good knowledge of merchandise; only 34 per cent of the "Worst" sales clerks were so rated.

Summary of Fifty "Best" and Fifty "Worst" Sales Clerks: There was only one individual under twenty, and only one over fifty, in the "Best" group. But there were five under twenty and six over fifty in the "Worst" group. It is likely that as a rule the "Best" sales clerks are not found among individuals under twenty and over fifty.

The majority of "Best" sales clerks came from people who had had no further education than the grammar grades afford.

While more than half of the "Best" sales clerks are single, still, the single group did not contribute as many employees to the "Best" group as its proportion among the entire sales force would justify; it contributed more employees to the "Worst" group than would be expected. Widowed sales clerks were very likely to be found in the "Best" group.

Selling experience does not distinguish the "Best" and "Worst" groups from each other.

Intelligence played some part. The "Best" sales clerks

contained a much larger group of employees with average or superior intelligence than did the "Worst" sales clerks (as determined by psychological tests).

There were few cases showing grave personality disorders, but whenever found they were universally among the "Worst" group.

Certain outstanding personality characteristics are usually found among the "Best" sales clerks—they are alert, aggressive, extroverted, or are ambiverts; active and energetic, convincing and ambitious, accessible, responsive, pleasant, courteous, are well integrated, and have good insight, show a good attitude toward themselves and life in general, and are vitally interested in whatever work they undertake to do.

The "Best" sales clerks are ordinarily free from serious nervous and mental abnormalities; while the "Worst" sales clerks are quite commonly handicapped by such conditions.

The "Best" sales clerks do not suffer materially from disabling physical conditions, while physical diseases and physical defects are quite commonly found amongst the "Worst" sales clerks.

The "Best" all-'round sales clerks are of considerable non-sales value to their department, are very helpful and vitally interested in anything that pertains to the welfare of their department; the "Worst" sales clerks do not show such non-sales value.

Conclusions: In the foregoing study we have outlined a variety of personnel factors that should be considered in determining the individual differences that distinguish good and poor sales clerks. The significance of the entire investigation lies in its evaluation of these various personnel factors, in their relation to a possible employment technique.

There are certain characteristics that mark the good sales clerk. Likewise there are certain discernible qual-

ities that identify poor sales material. It is obvious from the study that good sales people do not possess traits and tendencies wholly absent in poor sales clerks, or that poor sales clerks are not handicapped by conditions that are never found among good sales clerks. There is no clear-cut, sharp dividing line, of such a nature that it separates absolutely good from poor sales material.

People are pretty much alike the world over, their differences being of degree, rather than of kind or nature, a difference in quantity rather than in quality. The issue is one of a diagnosis of the *particular configuration of the personality and of its dominant and outstanding trends and characteristics.* By the clinical or psychiatric method those constitutional ear-marks associated with success in selling as well as those associated with failure are discoverable. (The chapter dealing with a "Psychiatric Guide for Employment" discusses a method for diagnosing the personality and summarizing the entire study of a case.)

This investigation makes clear that "Worst" sales clerks in a large proportion of cases are handicapped by physical and mental conditions, personality difficulties, and medical problems that influence unfavorably their adjustive efforts and lower their production efficiency. These conditions can and should be recognized during the preemployment inquiry.

This conclusion does not apply so forcibly to all high-cost-of-selling cases among whom there are many good people in the wrong job—that is, individuals not suited for selling, but available for other work; also there are many good sales clerks with poor location.

With the foregoing material in mind, the following suggested personnel qualifications for selecting good sales people are offered:

PERSONNEL QUALIFICATIONS

Sales Clerks

Age—Men—22 yrs. or over
Women—18 yrs. or over
Schooling—Men—P. S. graduate
Women—1-2 yrs. H. S. preferable
Work experience—not necessary in most departments; exceptions are such departments as
- Clothing
- Sporting goods
- Oriental rugs
- Shoes
- Diamond jewelry

Physical Condition

- Freedom of movement of arms and legs
- Freedom from flat feet
- Good eyesight and hearing
- Good vigorous general health
- Height
  - Women—5′5″
  - Men—5′8″
- Normal blood pressure

Special Abilities
Legibility—fair or good
Arithmetic—fair or good

Personality

General

- Alert
- Active
- Stable
- Well integrated
- Good attitude

Special

- Likes contacts with people
- Interested in selling
- Aggressive
- Convincing
- Extrovert or ambivert
- Pleasant and agreeable contacts
- Good appearance
- Able to inspire confidence
- Poise
- Able to talk well

Adaptable to different personalities
Responsiveness

Intelligence

I. Q.—80-110

It must be borne in mind that while the above outline is offered as a general requirement for sales clerks in mercantile establishments, special jobs and departments call for certain specialized abilities and traits that require of the employment interviewer detailed knowledge pertaining to job specifications and departmental environment. For instance, selling house-furnishings in the basement is a job best performed by married women whose natural interest in the fitting up of a kitchen or the selection of table service, etc., enables them to speak with imagination, enthusiasm, and conviction and to personalize each sale.

In sporting-goods men with athletic interests and experience have not only authoritative information necessary for selling certain merchandise to customers, but are in a field where natural bent furnishes an ease of performance and a basis for emotional satisfaction.

In shoes, Oriental rugs, diamond jewelry, and many like departments specialized personnel problems are presented that require of the interviewers technique a diagnostic discrimination more differentiating than is indicated in the above general personnel qualifications.

Some individuals have specialized abilities that enable them to be particularly effective in certain job situations, providing the interviewer has the knowledge and skill re-

quired for correct placement. The following case illustrates this point.

R. C.—AGED 26 YEARS.

Physical Findings: She is overweight, but seems to be in good physical condition. Medical card shows consultations for dysmenorrhœa, gastric disturbance, colds, etc., and some phlebitis of the leg. Health history discloses attack of appendectomy five years ago. Height, 5 feet 1½ inches. Weight, 148½ pounds. Blood pressure normal. Vision slightly defective in both eyes.

Mental Findings: *Psychological Study.* While Miss ——'s performance on the general clerical tests of speed, accuracy, and arithmetic could be rated as only fair, and she secured an I. Q. of only 84 (dull average intelligence), still, she showed even in writing on these tests her *very outstanding motor ability.* On the tests depending particularly on *motor skill,* she secured ratings of *very good in every case,* demonstrating *unusual dexterity.* She grasped instructions quickly and worked at the tests steadily. Her movements were quick and energetic throughout. She was very pleasant and cooperative during the testing periods.

Personality Study. She was neatly and quietly dressed and made a satisfactory appearance. Her manner was earnest, straightforward, and direct. She expressed her ideas clearly, concisely, and without elaboration, but pleasantly and agreeably. The most outstanding characteristic was her *good sense of reality.* In make-up she is an extrovert and she has no personality difficulties. Her ambition is largely centered around the work she is now doing, and her drive is good and her energy output is very efficiently employed. She appears to be a motor type,

one whose efforts are smooth and whose movements are well coordinated and easy. Her contacts are satisfactory, she is fairly well poised, is alert, aggressive, inspires confidence, and is convincing. In discussing her work, she showed no unusual degree of imagination, but a definite satisfaction. It is evident that she likes it and understands the points of salesmanship that make for success. Her attitude is definitely one of willingness to try to make her merchandise attractive and to give good service to the customer. She is interested in making suggestions as to ways of adapting the material, trimming, etc. Her ability in handling materials seems to have been acquired without any conscious effort to develop skill in this direction.

Social Findings: She is single and lives with her sister, who is a private secretary. Apparently there are no domestic or financial difficulties. She graduated from grammar school and had one year at commercial school. Her first work was selling in a silk shop, which she did for three years, but she grew tired of a small town and decided to come to New York. Her first position here was Macy's.

Job Behavior. Selling cost 2.49, department average 3.86. She sells at the —— counter in the —— goods department, and ordinarily is the only one located there. She has demonstrated an unusual ability to handle a bolt of material deftly, by giving it a quick toss that unrolls considerable material at once. With a few motions she is able to have a dress length unwound. Her movements in passing the material through the measure graph and folding it up are equally rapid. Because of her swiftness in handling a transaction she is able to take care of a great many customers during the day and is also capable of managing several at once. When time permits she displays her material effectively and talks about it to the

customer. Her manner is courteous and pleasant and when observed at work she exhibited purposeful use of energy, was intent on the thing at hand, and kept constantly busy.

Conclusions and Remarks. The outstanding factors in the personality make-up of this successful sales clerk are good sense of reality; freedom from daydreaming; alertness to the particular task at hand; extroversion of personality trend; an energy output that is well integrated and thus efficiently employed; a positive emotional drive based upon satisfaction in her job achievement; lack of interest and ambition beyond the work in which she is now engaged; freedom from interfering personal and home problems; a personality that is well poised, inspires confidence, and is convincing; an intelligence quotient that is not so high as to be beyond the limitations of her job and its environment; and finally a motor ability and skill that enable her to perform the manual aspects of her work efficiently. We have here a sales clerk particularly well placed according to abilities and interests.

Classification of Sales Department: It is convenient in employment work to have a grouping of sales departments according to certain major classifications or elements, having in mind the kind of merchandise, the size of the average sales check, the experience and technical information required, the type of customers, the sales clerk's average weekly earnings, the degree of selling technique required, the location of department, the pressure of work, etc. A study of the various departments of the store according to the above categories will result in their dropping into five or six major groups. In this way all the sales departments may be graded from one, we will say to six. One representing the lowest in order of importance or difficulty or value, and six the highest. A sales clerk may

be well fitted for any one of the Group 2 departments, but not for 3, 4, 5 or 6 departments.

By such a scheme a large department store will find it possible to take on a new employee of youth and immaturity, without experience in selling, etc., but of good personnel material and suited to selling in any of the lower grades of departments, and gradually fit him into the organization, seeing him progress from the least difficult and least important department all the way up to the most difficult and important departments.

Many good sales people not capable of measuring up to the departments within groups 4, 5 and 6, may nevertheless fit nicely into those of a lesser order of importance or grade of difficulty and value. In this way personnel committees at salary-review meetings will be able to retain rather than lay off certain clerks and secure a better adjustment for them in departments more in keeping with their potentialities.

The Maintenance of a High-grade Sales Force: Naturally many issues enter into such a consideration; some of them the author is not equipped to discuss. But certain matters do stand out in connection with our study of personnel problems that justify us in making the following observations regarding facilities for securing and maintaining a good sales force.

First. Naturally, first in order of importance is an Employment Department so equipped that it is capable of administering a selection technique consisting of clinical interviewing and psychological procedures that will evaluate (a) all those factors determining whether or not the individual applicant is or is not a good personnel risk in general. (We have brought out elsewhere those physical and mental conditions that make for failure at work in any job.) (b) personality and those other issues that de-

termine one's suitability for sales as opposed to non-sales jobs; and (c) the particular specialized qualities fitting one peculiarly for a certain department or group of departments.

Second. A Training Department and program that provides (a) general training in store system, policies, aims, and ideals; (b) specialized knowledge of the merchandise that is to be sold; (c) intensive training in selling technique and customer-sales clerk relationship; (d) case method of instruction relating to successful and unsuccessful sales service utilizing concrete instances of work failure and job success.

Third. Routine follow-up through Employment Department or Training Department, or both, *of all new sales clerks,* with a view to good job placement and personality and work adjustment. Catching early and preventing difficulties that later lead to resignation or transfer or lay-off. Such follow-up should continue through the first ten weeks of employment.

Fourth. Development of production criteria that will give both a qualitative and a quantitative estimate of the individual's work. This is necessary in order to compare him with other workers and to have a fair and unprejudiced record for estimating his value.

Fifth. Annual or semiannual personnel and salary reviews by means of which the complete record of each employee, including production, attendance, health, etc., etc., may be systematically reviewed in the light of possible salary increase, transfer, promotion, lay-off, etc.

Sixth. Keeping each sales clerk thoroughly acquainted with his or her own record and frankly putting all the cards on the table as far as their status is concerned, in order that they have a true and factual basis for self-estimate and self-criticism.

Seventh. Psychiatric facilities for the treatment and adjustment of individual workers who begin to lose in value, in order to salvage and repair rather than discard or lay-off.

Eighth. Medical facilities for the treatment of the sick, for preemployment examination, and such like service and welfare measures for recreational and other social work.

Ninth. A pensioning scheme properly worked out in justice to the store as well as to the old and valued employee.

CHAPTER IX

Automobile Accidents and Their Prevention

The Examination of Drivers: Out of a growing public apprehension over the ever-increasing danger to human life and property resulting from an enormous growth in the use of the automobile, there has developed in recent years a nation-wide safety movement aimed at the reduction in frequency and severity of avoidable accidents.

This movement has been responsible for sweeping educational programs, public lectures, poster exhibits, safety-first campaigns, and physical aids in the way of safety devices that have sought through protective measures and general enlightenment to bring about positive achievements in the way of accident prevention.

Nevertheless, from year to year the fatality totals mount to higher peaks and the threat to public welfare as the number of cars and drivers increase has become alarmingly real. Educational campaigns and safety devices, while proving to be beneficial, have nevertheless come no nearer the solution of the problem than have police admonitions, judicial warnings, court fines, and imprisonment.

Were all men equally prone to accidents, then such measures might have materially succeeded.

More recently, the emphasis that in early days was placed on safety-first campaigns and physical devices as aids to safety, is now being directed toward a consideration of the human factor, the individual differences of drivers, in their susceptibility and proneness to accidents. Recent work in this country and abroad has emphasized

the outstanding fact that the most important cause of accidents among motor vehicle drivers is to be found in the mental and physical make-up of the individual drivers themselves.

Careful studies show that accidents do not distribute themselves impartially among the men who operate cars. In one study of 6,000 drivers covering a period of one year, it was found that 46 per cent of the accidents were caused by 18 per cent of the drivers. If this 18 per cent of unsafe drivers had been replaced by safe drivers it is evident that the number of accidents would have been materially reduced.

In one sample of 200 men "of ample experience and maturity" in the service of a certain company, half the accidents happened to only one-fifth of the drivers.

Now if this can be said of the situation prevailing under fairly well-controlled conditions in companies where drivers may be selected with reasonable care and rigidly disciplined for infringement of driving regulations, what of the great mass of automobilists released upon a public protected by no other limitations in the way of examination for fitness to drive a car than is provided by an automobile license.

None who have studied this problem doubt that the majority of serious accidents can be attributed to a relatively small number of drivers, men who may be termed "repeated offenders," individuals who should never have been allowed to operate cars.

It was with the view of determining some of the more important causative factors underlying the tendency to accidents that this study was undertaken. We also wished to outline, if possible, methods for the practical detection of potentially dangerous drivers, so that, for our own purposes, applicants for delivery driver jobs could be examined, and safe material selected.

With a personnel of 450 car operators we had had sufficient trouble in the way of personal-injury claims, wrecked or damaged automobiles, ruined merchandise, etc., to justify financially a careful study of the whole situation.

A constructive attack on the entire problem covers three main fields: (1) better employment technique; (2) the development of a training program; (3) a reorganized departmental approach. It is with the first of these that this paper is concerned—selection of good driver material, individuals free from handicapping factors in their constitutional make-up, who are mentally and physically fit to operate motor vehicles safely.

Our approach to the problem may be briefly summarized under the following headings: (1) a study of the physical and mental processes involved in the operation of an automobile, under ordinary road conditions; (2) the development of objective methods—psychological tests—for measuring these processes in any given operator; (3) the standardization of the psychological and physiological procedures developed on old drivers; (4) the psychiatric study of the old driver group to determine whether or not there were clinical and constitutional sources of accidents which were not subject to satisfactory evaluation by the psychological procedures; (5) the statistical evaluation of the entire material with a view to the establishment of selection or employment criteria; (6) practical application to employment; (7) results and conclusions.

Processes Involved in the Safe Operation of a Car: After learning the mechanisms involved in the ordinary operation of a car and establishing the required motor habits through drill in coordinating response to stimulus, the safe driving of an automobile would seem to imply a particular complicated act of attention by which street and road panorama are observed and judgments are made with reference to the distance, direction, speed of move-

ment, nature, etc., of objects. Particular attention to relevant details, persistence of attention, freedom from distractability, reverie, fatigue, etc., are essential. But an individual may be perfect in ability to attend to a series of stimuli and still not avoid accidents if he is deficient in the capacity to give the appropriate response. He must behave in the proper and habitual manner to given stimuli; he must react correctly and quickly when faced by unexpected as well as expected situations.

On the one hand, it is necessary that the operator foresee occasions of possible accident, while on the other hand it is essential that he display such quickness and accuracy in *selective response* as to enable him to avoid a collision. All of this, of course, implies a high degree of coordination of eye and hand and eye and foot.

In arriving, then, at issues to be considered in a testing program, we must have in mind controlled attention, correctness of perception, judgments of distance and speed, appropriateness of response to stimuli, reaction time, tendency to confusion, motor coordination, and the like, all of which are affected by the condition of the visual and auditory apparatus, the general physical condition, health, strength and endurance, intelligence, personality make-up, and emotional stability of the individual.

The Development of Objective Measures: Our psychological program consisted of the employment of a series of testing procedures—the Porteus maze test of intelligence (a non-language test of performance ability); the Otis general intelligence test; the Hopkins motor-coordination test (a test mainly for coordination of eye and hand); the judgment-of-distance test (used in aviation for testing depth perception and distance judgment); Ishihara's tests for color blindness; standard chart for testing vision; blood pressure; test of judgment of spatial

relations (devised by ourselves but not yet standardized); and finally our so-called drivers' test, which we will presently discuss.

The above tests of intelligence, motor coordination, distance judgment, vision, blood pressure, etc., will be taken up in that section of the paper dealing with "The Clinical or Psychiatric Examination of Old Drivers."

After considerable study of the problem we developed a drivers' test, which consists of a simulus board with lights—red, green, and yellow—détour, slow, oncoming car, disturbing signals, etc., simulating road conditions and a driver's seat fitted out to resemble an actual car. These are connected electrically with a recording instrument, and an exact record can be made of all the stimuli and of all the operator's responses. The exact reaction time and the correctness of response can thereby be determined.

The subject is now given the following directions:

This machine is fitted up to resemble an actual car. The lights on the board at the front of the room represent lights you may see while driving on the road. You will be asked to respond in certain ways to certain of these lights, and you will be given a chance to learn the right moves before the real test starts.

When there is no light before you, and after you have responded to each light as it occurs, come back to the resting position—with both feet flat on the floor and your wheel straight between your hands.

When I start the motor, these lights will begin to flash. They will not come in regular order, so you must be wide awake and alert in order to catch every signal promptly. These are the things you must do in response to the various signals:

On the Red light, push foot brake.

Green light, press accelerator.

Yellow light, remain at ease, do nothing.

The two headlights on the left represent a car coming toward

you from the left, so when they light up you are to turn the wheel to the right.

The flashlight in the upper corner represents an emergency on the road, and when that lights up you are to pull on your emergency brake.

When the slow sign lights up you are to push your foot brake to slow down.

In every case, remember to do just as you have been told and nothing else. Also remember to come back to your original position after each response. You will be given a slow trial first so you will get used to what is expected of you, so be sure you understand what to do in every case. Now, what do you do on

The Red light?.....
Green light? .....
Yellow light? .....
Headlights? .....
Détour? .....
Flashlight? .....
Slow? .....

Do you understand? All right, then we'll begin. Now watch carefully, so you catch every signal and do the right thing.

The examiner now makes a detailed record of the performance of the operator on the following form. (See p. 272.)

Standardization of the Test on the Old Drivers: We selected as our subjects only those drivers who were operating gasoline trucks and included ninety-one men, representing fairly well the "run of the mine." Of these particular men we secured from the department all the data available as to the measurable factors in job performance—accident records, breakage and damage reports, absences, lates, and length of service. From these we selected the criteria which best lent themselves to statistical treatment. The number of avoidable accidents per six months and the length of service appeared to be the

Record of Performance on Driving Test

(Record, time and type of response)

NAME DATE

	RED		GREEN		YEL-LOW		FLASH		HEAD L		DÉ-TOUR		SLOW		AVER-AGE		AVER-AGE
TRIALS	RT	WR	RT	WR	RT	WR	RT	WR	RT	WR	RT	WR	RT	WR	RT	WR	ALL
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
AVER.																	

REMARKS

LEARNING PERIOD

GRASP OF SITUATIONS

EASE IN HANDLING MACHINE

CONFUSION

most reliable criteria of department value. These were correlated with the average reaction time, errors and omissions, in the performance of the test. It appeared from the first that our findings would be colored to a large degree by the fact that our test group was, after all, a rather highly selected one. The psychiatric study which we shall later mention had previously recommended the elimination of a considerable number of employees, leaving within the department a far more homogeneous group of fairly good driving material than would be desirable for the purpose of standardizing tests. For a correlation is the measure of the degree of correspondence between two series of measures, and each series must have a wide enough range between the extremes of its possibilities to give variation. The most important single factor in causing a low correlation is an extreme homogeneity within the group. Our own group, as we have said, was a particularly homogeneous one. In spite of this fact we found, with the driving test, a decided plus correlation, .51, as seen in the table below:

	No. Acc. per 6 mos.	No. Acc. per 6 mos. and Length of Service
Av. reaction time, errors and omissions, 8 trials	r — .323 ± .06	r — .4567 ± .06
Av. reaction time, errors and omissions, last 4 trials	r — .3748 ± .06	r — .5176 ± .06

As may be seen, the correlation is in every case at least five times the probable error (the statistical validity of

a correlation is proved if the correlation is four times the probable error). While the correlation does not furnish a valid critical score for the selection of drivers on purely a test basis, still it is sufficiently high to justify the use of the test with new employees as an aid in the general selective process and as a part of the total study of the case.

The norms that were established from this study on the "drivers" test are as follows:

NORMS ON DRIVING TEST

	Whole test			Last 4 trials		
	Good	Fair	Poor	Good	Fair	Poor
Time....	1.3 sec. & under	1.31–1.58	1.59 & over	1.13 sec. & under	1.14–1.31	1.32 & over
Omissions	1	2–5	6 & over	0	1–3	4 & over
Errors...	1	2–5	6 & over	0	1–3	4 & over

Reaction time and capacity for appropriate response are factors that can be measured. They are items of considerable importance in the make-up of individuals who are to drive cars, and when found to be particularly abnormal may be considered potential and significant causes of accidents.

Charles F. Park, in the *National Safety Council Bulletin,* discussing speed and types of drivers, has the following to say of the reaction time:

"The reaction time was determined by two pistols mounted on the running-board and pointed toward the ground, the first being fired by the observer when the car had reached the desired speed, the second one by the action of the person under test in making the initial motion of applying the brake pedal. The pistol shells, being loaded with red lead, fired bright spots on the road, the distance between which could be measured. The ratio of this distance, in feet, to the speed of the car, in feet per second, gave the reaction time.

Fifty-seven operators were tested, and the average reaction time for the 285 runs was found to be 0.54 seconds. Each operator showed some variability. Those drivers having the longer reaction times varied most. If we accept the average figure of 0.54 seconds, it is seen that when one of these average operators is driving his car at 60 m.p.h., which is 88 feet a second, and it becomes necessary to stop, the car would run 0.54×88 or $47\frac{1}{2}$ feet before the brakes would start to operate.

Some of the operators tested showed a reaction time longer than one second, and it was believed that the person selected for the tests (some of them taxi drivers) have a shorter mean reaction time than the average person. The experimenters claim that there is little doubt that many drivers could be picked up on the street who would have reaction time as long as 1.5 or even 2.0 seconds. In these latter cases, it is seen that the car would run 130 or 175 feet before the brakes would be given a chance to stop the car. It was stated earlier that the brakes must act quickly! it is now seen that the operator must act quickly. Otherwise, the distance that the car would run during the driver's reaction time may be greater than the distance in which the brakes would bring the car to rest. These facts demonstrate that some persons can safely drive a car at higher speeds than would be safe for other persons.

The effects of long reaction times are obvious. A person having a reaction time of $1\frac{1}{2}$ seconds when driving his car at a speed of 30 m.p.h. would run 66 feet after receiving a signal to stop, or, in an emergency, before he actually does anything that will bring his car to rest. Under present traffic condi-

tions, the danger of such drivers on the highways should be too apparent to need discussion.

When automobile operators have knowledge of their reaction times and know in what distance they can actually stop their car under all conditions, and when they confine their attention to operating the car and drive at a speed at which they can bring their car to rest within the distance for which they can see a clear way, then there will be fewer accidents on the highways that can be attributed to excessive speed."

But the whole story is not told in the discussion of these issues.

Other factors often, though not always, temporary in nature, enter into the situation, and serve to distract attention, influence judgment, affect attitude, and impair response, thus becoming contributory factors in accident causation. We refer to physical issues, health problems, and personality disorders, which will now be discussed.

The Psychiatric Study of Drivers: That changes in the physical and mental health, the presence of an asocial mental attitude, the development of personality disorders, may be the source of accident tendencies in drivers who have perfectly good reaction time and capacity for selective response, needs, it would seem, hardly to be discussed here.

The importance of these issues, however, has not been stressed sufficiently in other studies, though emotional stability tests and the like have been experimented with in certain quarters. But the matters chiefly under discussion are not, in the main, subject to the test method of approach; at least much less, for the present, may be expected from this quarter than from the clinical viewpoint.

We know perfectly well that in other occupations the performance of workers is not always in keeping with their capacity. We are all familiar with the effect of emotional

disturbances in producing inattention, daydreaming, unpleasant and pessimistic reverie, and the results of such on the effectiveness of the worker. We are all acquainted with people whose endurance is decreased by changes in physical health, and as a result whose efficiency is lowered. Then there are types of individuals who, though perfectly capable of performing tasks successfully, are guided throughout life by an extreme self-interest, having little or no regard for the rights or feelings of others, who invariably fail to do their share or play the game according to the rules. These egocentric personalities are irresponsible in work and are careless and reckless with others' property or lives. These and many other issues —mental disease, epilepsy, feeblemindedness, alcoholism, and the like—should be taken fully into consideration in connection with accident causation.

Of primary consideration is the fact that few, if any, persons ever do as well as they have the capacity for doing. And the explanation of failure is more often to be found in an intensive inquiry into the personality than in the simple measurement of capacity.

This has been notably true in our study of drivers. For the outstanding fact in our investigation has been the discovery that 60 per cent of the men whose records indicated a positive accident tendency have been found, as a result of the psychiatric investigation, to be suffering from sufficiently marked personality disorders to justify our considering them unquestionable risks in driving cars.

In order that we might get some sidelights on these questions, but mainly that we might aid the department head in grading up his personnel, the accident group for the year previous to the study received a careful phychiatric survey. Every man referred had had one or more accidents. Each driver was given a physical and mental examination, together with a social case inquiry, and the

findings from the total clinical study were correlated with his entire accident record. The men were divided into two groups—those who showed no particular accident trends and those who showed a definite proneness to accidents. Of course, the length of service was taken into consideration.

Seventy-one men received such a study. Eighteen of these had shown no particular tendency to accidents, while 53 showed a definite accident proneness—were inclined to be repeaters.

Age: The ages varied from nineteen to fifty years. Sixty-five per cent were under twenty-five years of age and they contributed 75 per cent of the total accident record of this particular group. But more significant than this was our study of the age distribution of the entire force of 450 drivers. Here we found that 55 per cent of the men were at the age of twenty-three years or under, and these contributed 74 per cent of all the accidents of the force.

Age undoubtedly is a contributory factor in accident causation. With youth there is a greater craving for speed. There is likewise a less tendency to foresee or anticipate possible happenings, at the same time that there is a greater carelessness and recklessness.

This all means that drivers of this age are on the whole greater risks than are the more mature men. Because of this, we do not now employ drivers as such under twenty-five years of age. However, we do take on the younger group as helpers and promote the more capable and reliable types later to drivers' jobs.

Schooling: We found no correlation whatever between the amount of education the driver had received and his accident frequency. The great body of our men, 85 per cent of the group, got no further than the grammar school.

Other Tables: Nor did we find correlations of any importance with employment history or experience as a driver or marital status or home problems.

Intelligence: Many investigators have placed emphasis on the intelligence quotient as being a distinguishing factor between good and poor drivers. In this particular group referred to, we did not have a sufficient number of men in the upper and lower limits to come to positive conclusions. There was only one case of superior intelligence, four cases of borderline defective, and three of feebleminded intelligence. All of these cases, however, were in the frequent accident group. The other sixty-three cases were distributed among the average, dull, and subnormal classifications, without any correlation with accident frequency.

However, it is evident that the majority of our drivers are around average or dull average intelligence, for another study conducted by us of the intelligence of 116 drivers, showed that 68 per cent, a little better than two-thirds were of average or dull average intelligence, having I. Q.'s 80-109. It is likely that both the superior-intelligence and the feebleminded-intelligence group are undesirable. Men of superior intelligence do not remain satisfied long with the job of driving a truck—daydreaming and reverie easily ensue. Feebleminded drivers are not alert enough to foresee opportunities for accidents or anticipate possible road situations that result in collisions, and there is some question as to whether they have not longer reaction time than the more intelligent types.

We should feel that the intelligence quotient was a factor to be considered in the selection of drivers, for in another study that we made of twenty-eight good and poor drivers, we found the average I. Q. (Intelligence Quotient) of the good drivers was 94, while that of the

poor drivers was 82. (Good and poor classifications were based on accidents and ability to handle their cars.)

Physical Findings: The possible effects of physical conditions on driving ability are almost too obvious to warrant discussion. Color blindness, bad eyesight, or seriously impaired hearing, organic nervous diseases and such, naturally impair the efficiency of the organism and must be routinely taken into consideration in connection with the suitability of any given applicant.

In this particular group of drivers, all of whom had had one or more accidents within the last year, there were seven cases of very poor vision, all of whom were in the frequent-accident group. Three cases of very poor hearing, all of whom were in the frequent-accident group. One case of suspected epilepsy, in the frequent-accident group. Two cases of syphilis, in the frequent-accident group. Three cases of cardio-vascular disease, all in the frequent-accident group. Four cases of poor judgment of distance (three of whom were in the frequent-accident group).

These and many similar physical conditions serve in time to impair the individual's effectiveness and driving ability; so that a medical examination, including a neurological study, is of fundamental consideration in the prevention of automobile accidents.

Personality Disorders: By personality disorders we refer to disturbances in the mental life of the individual either temporary in nature or of constitutional origin, due to psychic or physical causes and manifesting themselves in abnormal emotional changes, impulsive acts, daydreaming tendencies, irrational thinking, unhealthy reverie, faulty attitude, and often inappropriate and unacceptable behavior. These conditions are commonly the source of work failure among job misfits, and are found with suffi-

cient frequency among poor drivers to be listed as the most common causes of proneness to accidents.

In the group referred to above, we found that 70 per cent of the frequent-accident cases could be classified by psychiatric examination as personality problems, every one of whom were in need of some treatment efforts. In a later study of 116 cases, where we investigated the "run of the mine" of our driver group, 60 per cent of the frequent-accident cases showed such maladjustments.

The symptomatology characteristic of these conditions is only brought out after a careful clinical psychiatric inquiry, and is not fully evaluated through the measurement methods of the psychological test.

Illustrative Cases: Our problem drivers, of course, presented quite a variety of conditions affecting their safety and value as delivery men—some with physical defects and disorders; some with intellectual inferiorities; some with personality disturbances; some with delayed reaction time; and some with a combination of these conditions. It might be of value to illustrate these problems with a few cases.

L. R.—Male, aged 20 years.

Problem: Frequent accidents in driving truck.

Physical Findings: Height, 5 feet 7½ inches. Weight, 134½ pounds. Blood pressure, 124/76 mm. Vision normal in both eyes. His hearing is good; central color vision normal; judgment of distance excellent; physical and neurological examination negative. He seems to be in good physical condition.

Driver's Test: His learning as shown by his test was poor, and five explanations were necessary. He was very much confused. His performance was very erratic. He

had to be told what to do, and in spite of this made wrong responses. He did not seem to learn well. His reaction time for the four trials was 2.2. He had three wrong responses, two superfluous responses and one omission, and two responses that were before the lights. On trial 4 he had no errors, but had a slow reaction time of 1.5. In general, his reaction time was slow and his performance was not good. In his first trial he turned his wheel right instead of left and then turned his wheel left before turning it right. In the second trial he made the same error, although corrected by the examiner. He did not push his accelerator for the green light. In trial 3 there was another time in which he made a response too soon.

Mental Findings: I. Q. 65, giving him a classification of borderline defective intelligence. He was rated poor in motor speed, fair in arithmetic, legibility fair to good. His personal appearance was poor, careless, and untidy. His manner was antagonistic, rude, and arrogant. He did not make any effort at all to be agreeable and gave the general impression of being "a tough customer." He seemed touchy, oversensitive, and quarrelsome, and stated that when he gets mad he has quite a temper. He is not the motor type so desirable for good drivers. He says that he likes his work fine, but he does not display very keen interest in it and does not have a real sense of responsibility toward it. His type of personality is that of the ambivert. He is poorly integrated, has little insight, and his personality difficulties are interfering in his proper adaptation to his job.

Social Findings: Individual is single and lives at home with his parents. There are no financial or domestic difficulties. He went as far as 7B in school. His first position was as a packer for a concern, where he remained four months and left because the salary was too low. He then took a position as errand boy in a silk house, where

he remained a year, and left because of late hours. Then for one year he made eyes for dolls, and gave this up because the material got in his throat and the hours were too long. He then came to Macy's.

Job Behavior: Individual is considered by his department fair material as a driver. There is one difficulty they have with him, which is the fact that he does not like to be told what to do. He was laid off at one time because he refused to take out a load. He knows the routes, however, and can drive, but has had more than the usual number of accidents. He is not inclined to give the road, but forces others to give him right of way.

Conclusions and Remarks: This individual does not appear to be suitable material for a driver's job, and we believe he could be replaced without loss.

P. J.—MALE, AGED 48 YEARS.

Problem: Frequent accidents.

Physical Findings: Height, 5 feet 10¼ inches. Weight, 178 pounds. Blood pressure, 118/72 mm., normal. Vision slightly defective in both eyes. Neurological examination negative; judgment of distance excellent. Other physical findings negative. Although he says that he is in good physical condition, yet he seems to have had considerable trouble with his health. At the time he was examined he wore a belt for back support. He complains of some indigestion, and says that he has "catarrah." He has a long medical record and has evidently been a hospital problem from the standpoint of health.

He has been out "on Aid" from one and a half to two and a half months every year for the last six years. His absences have been due to conditions such as strained back, grippe, "nervousness," general debility, run-down

condition, etc. Besides all of these absences, he has had numerous consultations for ill-defined symptoms, and has presented throughout a typical psycho-neurotic medical history.

Mental Findings: *Psychological Study.* He secured an I. Q. of 90, giving him a rating of dull average intelligence. He was rated poor in arithmetic, solving correctly 9 out of 22 problems. Other ratings are: speed, irregular but mostly fair; accuracy, poor to fair; coordination test, fair; legibility, fair to good; color-blindness test, normal; and judgment of distance excellent.

Driver's Test. His grasp of instructions was poor and he had to be told several times to respond. It was necessary to repeat the instruction to him and jack him up from time to time. His average reaction time was slow and he made quite a number of omissions and errors. Reaction time for the first series of the test was 1.99, and he had six omissions and two errors. His reaction time for the second half of the test was 1.46. He had eight omissions and no errors. Reaction time for the whole test was 1.7 which is slow. We would consider his general performance rather poor.

Personality Study: His appearance was in general fair, but he was lacking in neatness and care of clothes. He talked a great deal, and his ideas seemed to flow freely but not always logically. He rambled in his conversation and did not stick to the subjects that he talked about, switching from one thing to another. He showed a tendency to exaggerate and to bluff. There is evidence of a defensive mechanism, based on an inferiority complex. In make-up he is a non-motor type, and has marked personality difficulties; he over-reacts to situations, is emotionally unstable, and has a strong psycho-neurotic trend. In general he is poorly adjusted to his job environment. His sense of reality is inadequate and his insight into his

work responsibilities is poor. He does not show a good ability to plan his efforts and does not seem inclined to do much reflective thinking.

Social Findings: He was separated from his wife, but is now living with her and his daughter, who is seventeen years old. There are no domestic or financial problems at present. He went to the sixth grade in school, and left at the age of twelve. His first work was as a cash boy in a department store, where he stayed for a couple of years. Then he came to Macy's as a wagon boy for a year or so. Then he went back to the first department store and drove a horse and wagon for two and a half years. Then he went to ——, where he was a driver for ten years. Then he came back here as a driver.

Job Behavior: He is now general-utility driver, and does not have a steady route. His work report indicates that he grasps instructions slowly and learns poorly; does not adapt himself well to new situations, and is rather easily disturbed by them. He does not assume responsibilities the way he should—does not take them seriously or supervise work well. He is slow in his work, and only fairly accurate. His memory is not very good, but he knows the store system. His attitude toward his work is rather passive. He wants to work in his own fashion, and is not dependable if not allowed to do as he pleases. He does not work steadily and is not prompt. He seems to be indifferent to accidents and presents inadequate excuses when he has them. He was taken off delivering furniture about two years ago on account of high damage record and poor attendance due to sickness. In his relationship with his supervisor he argues and talks while he is receiving instructions. He is reported by his helpers as being lazy. Sometimes he improves, but if not watched closely he slides back. He does a lot of talking and keeps other men from their work. He is being kept in the de-

partment because he has been here a long time and knows most of the routes.

Conclusions and Remarks: Mr. —— has low average intelligence, with personality difficulties of a psychoneurotic nature. He has a long hospital record and has been a problem both from the standpoint of health and from the standpoint of usefulness in his present department. He has had quite a number of accidents and his driver's test shows a fair to poor ability. His personality make-up is such that we feel, in general, he is poor material and of little value to the store.

Statistical Evaluation of Material and Application to Employment: It can be seen from the foregoing data that we have certain criteria which may be utilized in the employment technique. Matters of age, intelligence, physical condition, personality make-up, reaction time, and appropriateness of response have a definite bearing upon the fitness of an applicant for a driver's job. With these in mind we have outlined the following personnel qualifications for the use of our own employment department:

Personnel Qualifications for Drivers	*Personality*
Age—25-35 years (promotion from helper no limits)	*General*
Sex—Male	Active
Schooling—Public-school graduate	Alert
Physical Condition	Stable
Good general health	Free from personality disorders
Good eyesight and hearing	Well integrated
Freedom from special physical conditions affecting movements of arms, hands, legs, and feet; ability to lift and carry loads, etc.	Good attitude
Endurance	Interest in job

Freedom from conditions which make one susceptible to climatic changes

Special Abilities

Color test, normal
Accuracy test, fair or good
Speed test, fair or good
Arithmetic test, fair or good
Driving test, good or fair

Intelligence

I.Q.—80 to 110

Special

Mild introvert, free from day-dreaming and reverie trends
The motor type of personality whose responses are quick and accurate
Pleasant and courteous
Interest in routine and details
Cooperative
Likes and takes responsibility well
Liking for outdoor work
Amenable to discipline
Work without supervision
Slight supervisory ability
Effective contacts

Rating of Typical Good Driver According to Personnel Qualifications

R. A.—MALE, AGED 30 YEARS.

Problem: Typical good driver.

Physical Findings: Height, 5 feet 6¾ inches. Weight, 122½ pounds. Blood pressure, 112/70 mm. Vision—he is farsighted and both eyes are equal. Central color vision normal. Judgment of distance good. Neurological examination negative. Physical examination is negative, but he is rather slight and thin. Health history negative; hearing normal.

Mental Findings: *Driver's Test.* Learning period regular; no wrong responses. Average intelligence and is rated good in speed, good in accuracy, fair in arithmetic, legibility good.

Personality Study. His appearance was fairly good. He was neat and careful of his clothes and looked rather well in his uniform. While he was quiet and not inclined to talk much, he was alert and quick to grasp ideas presented to him, and was accessible and responsive during examination. He answered questions readily and intelligently. His manner was convincing, but he did not give the impression of being very aggressive or over-ambitious and probably would be satisfied to remain if he feels he is making any progress at all. He likes his work here and seems to be perfectly satisfied in his department. He gets along well with every one, and is courteous and agreeable in his personal relations. Well integrated, emotionally stable, and presents a very desirable type of make-up for a good driver.

Social Findings: Individual is married and lives in the city. He has four children ranging in age from six years

to five months. There are no domestic or financial difficulties. He attended high school for two years. Before his employment here he had been a driver for six years, having worked for —— Express Company.

Job Behavior: He is considered one of the best drivers by his department. A steady, quick and reliable worker. Can be depended upon. He has had no accidents and has not been an attendance problem.

Conclusions and Remarks: We believe that Mr. —— is a good type for delivery driver, as he possesses the necessary ability, plus the intelligence and personality suitable for this work.

The Case of a Helper Candidate for Driver's Job:

R. L.—MALE, AGED 19 YEARS.

Problem: Survey of Helpers.

Physical Findings: He seems to be in good physical condition. Health history negative. He has some nearsightedness and he has poor judgment of distance and red-green color blindness. Neurological examination otherwise negative. Medical card shows no consultations. Height, 5 feet 6¾ inches. Weight, 129 pounds. Blood pressure, 130/74 mm. Vision, normal in right eye, nearsighted in left eye.

Mental Findings: *Psychological Study.* Mr. —— secured an I. Q. of 80, giving him a classification of dull average intelligence. In arithmetic he was rated fair, having solved correctly 13 out of 22 given problems; coordination test, fair to poor. He showed a fair grasp of the instructions. In working on the tests, he gave evidence of only fair concentration and seemed to exert

a fairly poor amount of effort. He appeared somewhat detached as regards alertness to the general situation.

Driving Test. He was not confused by the test, but he didn't seem able to grasp instruction or to learn what to do. He failed to grasp the situation. No response pattern was formed. He made two omissions and nine errors in the second series and his reaction time was 1.45. His rating on the test is poor.

Personality Study. He presented a fair appearance, but was resistive and inaccessible and answered in an offhand manner, as though anxious to get the thing over with. He was not at all cooperative, and made a very poor contact. He is not convincing in his statements, and has a neutral, almost glum manner. He showed poor insight into his own problems and a poorly integrated personality.

Social Findings: He was born in New York, and has lived with his parents all of his life, until a year ago. At that time he had some difficulty with his father, and left home to live with his aunt. He left school after one year of high school, because of money difficulties at home. His first job was as a clerk. He started at $15 and was raised $25 during a period of 4½ years. Business was slow and his boss wanted to reduce his salary, so he left. He then came here as a helper.

Job Behavior: He shows about the average ability as a helper. He learns fairly readily, is adaptable, and seems interested in his work. He has a tendency to report to work late in the morning, but outside of that his attendance is satisfactory.

Conclusions and Remarks: Mr. —— has dull average intelligence, with personality difficulties. He has physical handicaps, poor distance judgment, and color blindness as well. His drivers' test was poor; his attitude is unconstructive. We feel that he is poor material, and would recommend his lay-off.

Results: The above criteria and examination measures were introduced into the employment procedure, and all applicants for drivers' jobs, and all helpers before promotion to driving, were to receive a careful and thoroughgoing study by psychological and psychiatric methods. At the same time, a motor school was developed for the training of those found fit for driving, while the department itself reorganized its approach to the whole problem of follow-up, supervision, salaries, etc. In short, a complete change of front, with reference to the entire matter of accident causation, resulted in laying emphasis primarily on the suitability of the employee for the particular task he was to perform—his capacity for driving safely, and his general fitness for the risky job of operating a truck.

It is too early to draw final conclusions from the new approach, and yet the following table is suggestive. Two periods are covered—before and since starting the new program.

	Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*
Average number of accidents per 1,000 vehicle days, 1927.....	11	11	11	11	11	11
Average number of accidents per 1,000 vehicle days, 1928.....	5½	4	2	3½	2	5½
Per cent reduction.....	50	55	82	68	82	50

It is interesting to note that there has been a decrease in the employment of drivers during the first six months of 1928, as compared with the same period of 1927, of 92 per cent; and a decrease in the employment of helpers of 65 per cent.

Conclusions: A study of selected and unselected groups of drivers discloses outstanding differences in their physical and mental make-up. Such differences in make-up are

so correlated with their behavior in driving as to justify rather positive conclusions as to accident causation, and as to fitness of certain individuals for the occupation of driver or chauffeur.

Some operators of cars, because of constitutional factors not altogether within their own control, are specially liable to have accidents. These men either should not drive cars at all or, with full knowledge of their special handicaps, should place themselves under rigid limitations as to speed, etc.

In selecting drivers certain qualifications are desirable. These have been outlined in some detail, under the heading of "Personnel Qualifications." It is possible through the psychiatric and psychological inquiry to determine the fitness of applicants for drivers' jobs. Such examinations should be routine.

We have nowhere stressed the grave danger to the public that lies in the operator who uses alcohol or drugs, in the driver who is insane or who is epileptic. I well remember a case, when as medical director of the Municipal Court in one of the larger cities of the country, of an ex-motorman who was arrested for stealing a snare drum. He was sent to the psychiatrist for examination, and we found a case of well-marked general paresis—paralysis of the insane—softening of the brain—a condition wherein judgment is completely dethroned. The tragedy of the situation was that he had had five accidents within one year with his car. The last one previous to his lay-off by the company; he had driven his car into another car, injuring thirteen people.

What is the mental and physical condition of the average automobile driver? What are his abilities and possibilities from the standpoint of safe driving? These are matters of first importance when it comes to avoiding accidents. Training in the technicalities of operation and

adequate department supervision, though vitally important, are secondary considerations to the selection of the right man.

It is possible to foresee the day when there will be a rigid psychiatric and psychological examination of all drivers of motor vehicles and public conveyances. Questions as to the cost of such a program may well be answered in terms of the enormous toll of human life that is yearly exacted through failure to provide such facilities.

CHAPTER X

Psychological Tests in Business

Industry has been using psychological tests for some years, and much has been written on the successful results achieved. Little, however, has been done in the department-store field, and, since it presents a unique problem, we present here the procedures that have been developed in four years of psychological testing in a large department store.

The peculiar nature of department-store work gives rise to many jobs which require the possession of abilities depending on personality make-up rather than on measurable capacities. A large proportion of our jobs are in buying and selling merchandise, making adjustments with customers, giving information to customers, maintaining service to customers—all involving direct personal contacts; so that out of some eight or ten thousand employees, at least 40 per cent are largely dependent for their success on their ability to meet people effectively.

The influence of the store business also extends into the non-selling divisions and causes great variations in the routine of even the simplest jobs. If you go into a Ford factory, you can see rows of men sitting before similar machines, all performing the same operation at definite intervals, but if you go into the marking room of a large store you will see a girl stamping prices on books, a man placing tags on large wire frames, another man measuring yard goods, two or three women pinning tickets on hosiery by machine, etc. On this job, which keeps about one

hundred and fifty people busy, there are not half a dozen whose work is really the same. The only *sameness* that runs throughout the organization is to be found in the importance of personal contacts, but even this varies in degree. The whole structure of a store is built on conditions peculiar to each small group in it, and, therefore, on the personal effectiveness of the individuals it employs.

The unusual job conditions in a department store gave rise to the need for a different concept of employment tests than that found necessary in other organizations. This concept was further modified by the development of psychological testing in conjunction with the development of a psychiatric clinic and a psychiatric technique in employment work. It was realized that while personality issues played a very large part in the success or failure of individuals at work, there were some special abilities fundamental to the effective performance of certain jobs. Psychological testing grew, therefore, as the tool by which certain capacities and behavior patterns could be measured under standard conditions. As a result, the tests which have been developed have been used as the means of bringing out certain forms of behavior and measuring degrees of achievement and performance which may be used as guides in placement. Our test batteries and the ratings based on them may best be compared to Seashore's method of presenting scores on the musical-ability tests; to Downey's "psychograph" for results on the "will-temperament" test. In each case there is an analysis of degrees of achievement in various performances rather than an arbitrary score which permits of no further interpretation and use. The aim of our entire psychological testing program has been twofold: (1) to provide a series of measures of individual ability for use in a psychiatric clinic; (2) to develop adequate employment tests. In order to accomplish this purpose, we have divided our psychological work into three

main parts: clinical testing, employment testing, and test development. While there is much overlapping here, and while the work of each unit is dependent on the others, still it will be convenient to divide them for purposes of discussion.

Testing Service for Psychiatric Clinic: The psychiatric clinic handles about two thousand people a year, all of whom are given psychological tests, preliminary to the general clinical examination. The testing is done by a trained psychologist, who sees an average of seven people a day and tests them individually. These people are cases which have been referred to the clinic for a large variety of reasons: general survey of department personnel, applicants for employment or special jobs, problems of work or personality, maladjustment, promotional candidates, placement cases, and the like. As may be expected, these people not only come for various reasons, but are drawn from a wide variety of sources, and are therefore a somewhat heterogeneous group, needing careful handling and close attention.

The particular tests used in any case are determined by the nature of the problem and the work the employee is expected to do. There are a series of test batteries which have been developed for various jobs and different types of problems, and these are the guides in deciding the tests to be used. However, in certain cases, the examiner finds that the situation calls for slightly different handling, and in such instances she uses her own judgment and experience in determining the most suitable tests.

While the testing is going on, the examiner observes the behavior of the employee and makes careful notes on his degree of attention and concentration on the tests, his ability to grasp and follow directions, his general attitude towards taking the tests, his manner of tackling them, and any other actions which appear unusual and characteristic.

There is especially good opportunity for making observations on the manner of work and degree of attention, for there is a quiet but rather constant flow of cases in and out of the room and the examinee is left largely to his own devices for the duration of the test.

After the tests are scored, the psychologist rates the performance according to the norms for each test, and the rules for combining them. The record of test results is sent in to the psychiatrist before he sees the case. The psychologist also writes a report on the test performance and general behavior in the testing room. All relevant factors are included here: comparison of performance on tests given at different times; interpretation of seemingly inconsistent or unusual behavior as brought out by other behavior in the testing room; actual ratings on tests themselves and on general performance.

The written report is sent to the psychiatrist and is included in the final summing up of the case. The test scores and ratings are entered on the general file card with the other clinical findings. In order to make our use of test scores more flexible and to provide a check on the testing office, a card record is kept of every case handled. The tests are coded and the most commonly rated abilities are also coded, so that writing the cards is a matter of only a few minutes a day. The cards are kept in alphabetical file and are a permanent record of tests given. In order to aid our research work, the records of those cases which are tested as part of a survey are entered on blue cards; the other on salmon-colored cards.

Most of our preliminary experimental testing carried on in connection with department surveys is done, of course, in this testing office. For this reason the separate test record is of particular importance. In order to be fair to our cases and in order to establish the reliability of our tests, all individuals referred to the clinic who have been

EXAMPLE OF CARDS USED

	Sept. 7, 1928 Promotion *	
	(date tested) 6402 **	
Kennedy, Mary		
(Name)		
1.	106	A—Fair
2.	15–18–22 Fair	B—irreg.
3.	4′03″–0 Errors	C—Fair to Good
3a.	3′16″–3 Errors (1E Cop. 2E dir)	
3b.	3′32–2 Errors	
5I	2′03–2′38–(Baseball)	
5II	2′30–2′50–75 (0 absurdities)	

Key

1.	Otis test—I.Q. rating
2.	Cashier's Arith.
3.	Cancellation
3a.	Ad copying
3b.	T-13
5I	Healy Completion I
5II	Healy Completion II
A.	Speed
B.	Accuracy
C.	Legibility

* Reason for study.
** Present staff number.

tested more than six months previously are retested.[1] All test ratings for an individual are entered on the same card, so that we have an excellent source of material for self-correlations on tests. The methods and practices evolved in this office are guides to the handling of the testing in the employment office. The method of administering the tests is, of course, the same in both places. The more leisurely nature of the clinical testing, however, gives this examiner more opportunity for the criticism of the tests, the directions, the order in which they are to be given, and the like. It forms, therefore, a most valuable experimental station for the development of test procedures, as well as a source of information on particular cases for clinical study.

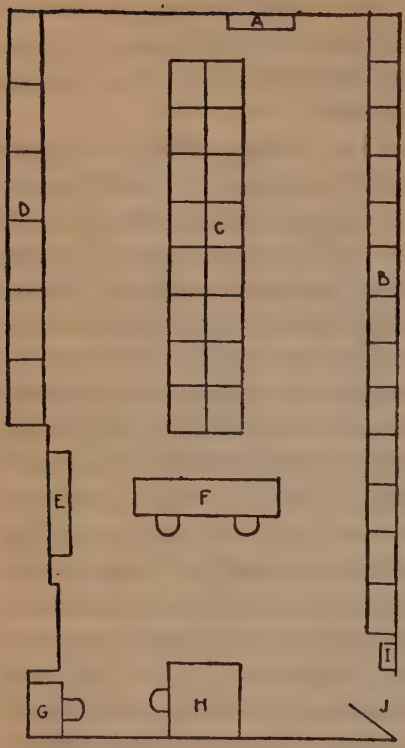
Testing Service for the Employment Office: The testing service for the Employment Office has a staff of four people—a psychologist in charge, two clerical assistants

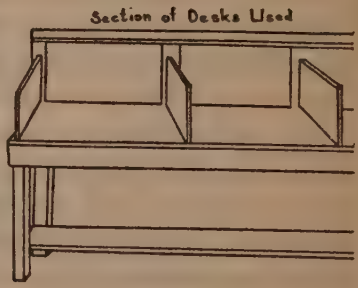
[1] It has been found that the practice effect on the tests is negligible after a period of six months.

who have been trained in testing, and a messenger who does miscellaneous clerical work and scoring by use of printed keys. The office is equipped to take care of thirty-five people at a time. The arrangement of the room is shown in the diagram on page 300.

As each applicant enters the testing room, he carries with him an application blank on which the employment interviewer has written the name of the job for which he is being considered. One of the examiners meets him at the door, takes his application, and notes on it the time of his arrival in the room. The time is also noted on the first test he takes, as is the name of the job for which he is being studied. By consulting the schedule of test batteries the examiner determines the tests to be used in each case and takes them out all at once, so that there is no possibility of overlooking any. In order to facilitate testing, the applicant is seated at a desk in the section of the room where there are others taking similar tests. He is given his tests one after another and is told in the case of each non-time-limit test to raise his hand when he completes it. The examiner watches closely to get the exact finishing time on her stopwatch and records this on the paper in minutes and seconds. As each test is finished, the examiner places it on the scoring table where the messenger and one clerk are continually scoring, and grouping papers according to names, and preparing rating sheets. Thus by the time the applicant has finished his last test there is only a two- or three-minute wait before his report is ready for him to return to the interviewer. The time of his exit from the room is noted on the test blank, and on the application form, also.

Of course, the amount and variety of the testing is dependent entirely on the needs of the organization. Some days there will be a demand for porters who are not tested at all, and other days there will be a call for typist cor-





A—Till test table
B—Single desks
C—Double row of single desks
D—Double desks—typewriters
E—Supplies
F—Scoring table
G—Desk
H—Desk
I—Test supplies
J—Entrance

respondents who need careful individual testing and who spend over an hour in the testing room. Each morning the Employment Office psychologist is notified of the "Help Wanted" advertisements inserted in that day's papers, so that she may be prepared for the type of testing needed. This gives time for the securing of extra typewriters, more test material, and the like.

There is also a daily fluctuation in volume, starting with large numbers of cases on Mondays, keeping up a fairly large flow Tuesdays and Wednesdays, and dropping off at the end of the week. The hourly flow varies considerably also, usually not starting until 10, generally rising up to 11:30—staying at a peak until 1, and then gradually decreasing until 5:30. The type of tests and the daily and hourly flow of cases have a direct relationship to the effective running of such a service as this one. Wherever it is possible, the Employment Office arranges the hours for hiring for various jobs in order to spread the work over a longer period and facilitate its handling. This can be done only to a limited extent, of course, but such "staggering" as can be done is extremely helpful.

The report sent to the interviewer is similar to the one used in the clinical testing office, but is arranged in outline form.

The information on this report is copied on the interviewer's card record of each new employee and the report itself is sent up to the Training Department for use in individualized training. No test papers are kept in the testing office, but records of all tests given are kept on file cards, the same as those described under the section on the clinical testing office. These cards are kept strictly alphabetically and are an excellent and flexible system for daily use on individual cases, as well as for statistical purposes. Since records of all tests are kept, regardless of the employ-

TESTING OFFICE REPORT ON APPLICANT FOR.....

NAME..... DATE.....

Test Ratings	Job Attitude Observations of Behavior
1. Intelligence Quotient	Grasp of instructions
2. Speed	Attention
3. Accuracy	Attitude
4. Arithmetic	Ease of performance
5. Dexterity	System
6. Legibility	
7. Learning	
8.	General impressions and remarks
9.	
10.	

ment or non-employment of the applicant, there is available abundant material for establishing test norms on the basis of the frequency distribution of scores made. Further reference to this phase of our work will be found in the section on test development.

Test Development: The development of adequate selection tests is largely dependent on the conditions found in the job for which they are needed. There are a few steps

which are fundamental to the establishment of good selection tests. These may be briefly summarized as follows:

1. Analysis of the job in order to discover its essential features and the individual abilities needed in order to perform it successfully.
2. Development of adequate criteria for measuring or judging success on the job.
3. Choice of tests to measure necessary capacities.
4. Administration of tests to selected group of workers, preferably numbering thirty or more individuals.
5. Validation of test results.

The question of job analysis and the determination of special abilities needed for success in a given job have been treated at some length under the section on "Surveys." The next and more difficult problem which engages our attention is the choice of criteria of success on the job. This is a complex problem in most cases, but appears to be particularly difficult in department-store jobs, due to their varied nature. The small number of individuals on most jobs present another difficulty in judging work. Among jobs requiring some 8,000 employees there are only 24 jobs on which more than 30 individuals are employed and 104 jobs on which between 10 and 30 people are employed. Even on the jobs where there is apparent uniformity, analysis discloses many variations.

The selling job, which might appear to be perfectly analogous throughout the store, in fact varies greatly from department to department. Some jobs require only handing merchandise over the counter, while others require a high degree of real salesmanship. Adequate comparable measures of achievement are therefore very nearly impossible to obtain. Other groups performing similar func-

tions vary considerably in performance—markers and stockmen, for example (whose ranks comprise 130 and 90 individuals, respectively), handle such different types of merchandise as ladies' handkerchiefs, rugs, and pictures. The establishment of job criteria is, therefore, an extremely complex and lengthy task.

Since all of the research work on tests has been in conjunction with the psychiatric group, and since there has been a thorough inter-relationship in the handling of material and study of cases, it was possible to solve to some extent the problems referred to above. The cooperation of department managers and other organization facilities have been of help also. Wherever it has appeared possible for us to develop departmental records of achievement or to establish any other sort of objective criteria of success, the department manager has been extremely helpful in devising ways of carrying out our plans and of insuring their continuance. Production and error records have had to be developed in some instances; percentage records, time records, judging committees, complaint records, and the like in others.

These, together with the psychiatric worker's investigation of job behavior, have proved invaluable to our work on test development.

The choice of tests to be used in our study has been limited for the most part by conditions of our work. Since many of our jobs require similar types of ability, we have found it possible to use many of the same tests in several studies. We have been especially careful to comb the existing body of tests for appropriate ones for our use in order to take advantage of the experimental work already done in the field. There is no particular virtue in the deliberate duplication of work already well started. The only tests we have really created have been one or two tests which

are entirely out of line with any that have hitherto been prepared. The tests themselves are, on the whole, objective, simple to administer, lacking in the necessity for elaborate equipment, and requiring only a short time. They are discussed in further detail in the next section.

The real departure which we have made from usual procedures is the elimination of a time limit for most of our tests. We use many simple clerical tests of checking numbers, copying, etc., and we originally set a time limit for these and secured a measure of speed by the number of units completed and of accuracy by the number of errors made. But it was found that the effect of this method on the employees and applicants was quite unfortunate. In spite of all assurance to the contrary, they felt it incumbent on them to be able to complete a simple checking task in the time allotted, and became quite upset when the paper was taken away from them. After trying this system for several months, it was finally abandoned in favor of a task-limit method. Our directions in these tests are, therefore, to do the job as "quickly and carefully" as possible. We then take the exact time required in minutes and seconds, and count the number of errors made. By giving these tests for several months in our Employment Testing Office, material for the establishing of norms was collected.

The administration of the tests is in accord with the usual procedures. Our general practice in developing a test battery is to

1. Try out a selected battery of tests on a miscellaneous group in order to work out directions, fore-exercises, etc.
2. Have one examiner give tests to all individuals on job.
3. During this period to criticize and to develop

standard methods of giving instructions, so that the test is completely intelligible to the dullest applicant. Our tests are, in the main, measures of special abilities rather than of intelligence itself, so that it is only fair to the applicant to make the task fully understood.

4. Develop standard objective methods of scoring tests and establish the reliability of the tests used.
5. Teach all examiners the same method of giving and scoring tests.
6. After securing a large number of cases, establish norms on the test. These are usually based on several hundred cases of applicants for a job, including both the employed and the unemployed. We thereby obtain a basis of comparison between workers and the general population.
7. Evaluate the test results by checking against such department criteria as are available, or, if the number of cases is too small or the group too highly selected, by a continued follow-up program over the course of several years. In this validation of the tests several methods may be used: correlation with objective criteria of success, scatter diagrams showing the scores in relation to departmental ratings, length of service of new employees selected on the basis of the tests, and the like, depending on the material available.

Furthermore, detailed discussion of the test development and validation is better placed and easily found in numerous technical volumes[1] and would be superfluous here. It may be well, however, to illustrate our procedure by describing the development of selecting tests for cashiers.

[1] McCall, William A., *How to Measure in Education.* Macmillan Co., 1923; Bingham and Freyd, *Procedures in Employment Psychology.* A. W. Shaw Company, 1926.

The method of job study to determine special abilities necessary for success has already been discussed in a previous paper. There were needed, then, tests to measure the following qualities: intelligence, accuracy, speed, motor dexterity, and arithmetic ability. The tests used were: Otis self-administering test of mental ability, cashier's arithmetic, number cancellation, similarities and differences test, number-finding test, card-sorting test, peg test, and carrier-till test.

A preliminary study was made of cashiers and all applicants for cashiering jobs from August 1, 1925, to February 1, 1926. This study included 144 cashiers in all. The next group tested were applicants for employment from February 1, 1926, to September 1, 1926. Of some 288 applicants tested, 63 were employed. In addition, further studies were made of certain groups employed since September, 1926, especially in regard to the till test. The actual performance on the tests was checked against various department criteria—the average number of transactions handled, the number of errors per 1,000 transactions, time studies on the job, and ratings of the department head. The results may be summarized as follows:

1. The great body of successful cashiers were classified as of dull-average or average intelligence.
2. There was an agreement between the test ratings of speed and the department manager's estimate of speed in 85 per cent of those rated good and 60 per cent of those rated poor.
3. There was an agreement between the test ratings of accuracy and the department manager's estimate of accuracy in between 80 per cent and 90 per cent of the cases.
4. There was an agreement between the test ratings

of dexterity and the department manager's estimate of dexterity in 65 per cent of the cases.

5. There was an agreement between the test ratings of learning with the Training Department's estimate of learning in 61 per cent of the cases.

The actual correlations between tests and objective criteria were as follows:

SPEED

Tests with Time Studies	r
Number-finding	+ .47
Similarities and differences	+ .15
Sorting	+ .24
Carrier till	+ .60
Composite (Number-finding; Similarities and differences; Sorting)	+ .64
Composite (Number-finding; Similarities and differences; Carrier till; Sorting)	+ .65

ERRORS

Tests with number of errors per 1,000 transactions		No. of errors on time study
Cancellation	r = + .04	r = + .27
Similarities and differences	r = + .15	r = + .07
Carrier till	r = + .16	r = + .52
Arithmetic	r = + .10	r = + .80
Composite (Cancellation; Similarities and differences; Carrier till; Arithmetic)	r = + .63	r = + .43
Composite (Cancellation; Similarities and differences; Carrier till)	r = + .46	r = + .60

As a result of these studies it was found that, while several of the tests appeared promising, the most promising of all, aside from the arithmetic test, was the carrier-till test. We therefore started further experimenting with this test. We used our regular battery of tests for employment purposes. After employment and before individuals had been sent to training school, they were given the carrier-till test. They were then followed up on the job and time studies were made at the end of one week, one month, and three months of employment. The carrier-till-test scores were then correlated with time study records of the performance on the job. The results are shown below:

Carrier-till test with the time studies		$r = +.74$
Composite with time studies	Number-finding Similarities and differences Sorting Carrier till	$r = +.74$

The next step in the study will be the further correlation of the test with the department records of production. If these prove as promising as those with the time studies, the test will be incorporated in the present employment test battery. The full description of the test itself is discussed further on in this chapter.

In all our work on the development of tests, we have aimed toward the establishment of batteries of measures which would give a profile picture of an individual's degree of ability in various performances. This "psychograph" has the advantage of presenting in detail the capacities of the person, the particular respects in which he is deficient and those in which he is proficient. This forms an excellent basis for individual training as well as for selection. This procedure is in accord with our general concept of the function of tests and is especially helpful in an organi-

zation where a psychiatric viewpoint toward placement and employment has been developed. In every case where we are able to obtain a series of reactions of a similar nature, we have based our ratings on the series rather than on any one especially designed measure. This method is not in sympathy with the foot-rule testing methods by which we might give a fifteen-minute test and so rule out on its basis about 90 per cent of our applicants and keep on only some 10 per cent who fulfill our single standard of judgment. With that method, used in a plant having perhaps 300 people at the same job all day long, day in and day out, some measure of success may be expected. And, decidedly, an impressive statistical correlation could be obtained.

But if we are interested in applicants as people, as store personnel, as well as, or even more than, job-fillers, we need more rounded and careful methods of selection than that described above. No one test can possibly give the same degree of information or an equal degree of assistance to the interviewers' analysis of an individual as can be secured from a well-chosen battery of tests.

The Tests Themselves: The problem involved in the choice of tests will vary according to their purpose and the kind of place in which they are to be used. When studying children in child-guidance clinics or in schools, the testing is done individually, can take hours if necessary, and can make use of the most elaborate types of laboratory equipment. But testing in business institutions is a different matter.

In the first place, the group on whom the tests are tried out are individuals who are hired to do a full day's work in a fast-moving organization. It is unfair to them and productive of ill will toward the test service group to keep these people away from their work for too long a period of time or to call them away too frequently. Be-

tween two and two and one-half hours is about all the time permissible for the complete psychological and psychiatric examination of an individual. This allows about one and a half hours for the psychological tests during the experimental period.

The tests must be prepared with the possibility of their use in employment always in mind. This entails another problem. The testing service for the Employment Office handles about 15,000 cases per year, with a large concentration of cases in the fall season. At all times during this season there are between ten and twenty people being tested at one time for different jobs, and often there are as many as thirty-five applicants in the room at once. Unfortunately, they do not all come in for their tests at the same time nor do they all take the same tests. This means that we must do individual testing in as nearly a group method as can be managed.

In order to meet the practical conditions which face us, we have therefore had to develop tests which conform to the following requirements. These tests

1. Are mostly of the paper-and-pencil variety
2. Have for the most part complete written directions, and where necessary, a fore exercise
3. Are very short and require no special observation by the examiner (two or three exceptions)
4. Can be corrected and scored by the use of a key (two or three exceptions)
5. Require no elaborate equipment and can be given in the regular testing room (one exception)
6. Form test batteries requiring less than forty-five minutes to give (three or four exceptions)

An outline of the tests used, the purpose of each, the batteries for various jobs, a discussion of those developed

here or changed in their use, and a table of test norms, follows.

It may be necessary to add here an expanation of our rating system, particularly for speed and accuracy. In all cases where speed and accuracy are important factors in the job, at least two special tests, and, where possible, three or four, are given to the subject. The norms for each test are derived from frequency curves as described in the section on "Test Development" and an individual's tests are separately rated according to these norms. These individual ratings are then grouped as shown below.

Speed, Accuracy, etc.

A. Test 1	Good	General Rating Good
" 2	Good	
" 3	Good	
B. Test 1	Fair Plus	General Rating Fair
" 2	Fair	
" 3	Fair	
C. Test 1	Good	General Rating Fair Plus
" 2	Fair	
" 3	Fair	
D. Test 1	Poor	General Rating Irregular
" 2	Poor	
" 3	Good	

In other words, these tests are considered as giving several views of the same type of behavior, so that the general tendency revealed by their score is the significant consideration for employment purposes. If we answer the question: Is she generally speedy? or accurate? etc., and then give the scores of achievement on such tests as arithmetic, intelligence, etc., we have given the employment interviewer or the psychiatrist a sound basis for judging the job abilities of an individual.

The tables on the following pages are self-explanatory and have proved useful in our testing offices. The tests themselves have been described in detail only when they have either originated with us or have been adapted somewhat differently from common use.

Test Batteries

Executive Positions

Training squad T S
Section manager S M
Desk clerk B A D
- Otis
- Cashier's arithmetic
- Number cancellation
- Address-copying
- Healy PC II

Receiving supervisors R M X, R M S
- Otis
- Marker's arithmetic
- Number cancellation
- Address-copying
- Pins

Clerical Positions

1. Merchandise Control C M C
   - Otis
   - Merchandise control arithmetic
   - Number cancellation
   - Address-copying
   - Card-sorting
2. Accounts Payable C P G, C P R
   - Otis
   - Accounts-payable arithmetic
   - Number cancellation
   - Address-copying
3. File Clerk C F F
   - Otis
   - Cashier's arithmetic

Number cancellation
Address-copying
Number-filing
Alphabet-filing

4. General
Non-selling contingents N M N
Receiving platform R P R
Receiving mail order R O W
Purchase audit C P O, C T O
Otis
Cashier's arithmetic
Number cancellation
Address-copying

5. Delivery Entry Clerk D I E
Number cancellation
Address-copying

Performance Positions

Correspondent Typist B C R
Otis
Typing
Typed letters

Driver D C D
Otis
Porteus
Cashier's arithmetic
Ishihara color-blindness test
Driver's test [1]

Bureau of Adjustments Tracer B A T
Receiving Order Filler R O F
Otis
Cashier's arithmetic
Number cancellation
Address-copying

Receiving Checker R M C
Otis

[1] Described in section on study of drivers.

Marker's arithmetic
Number cancellation
Address-copying
Pins

Stenographer
Otis
Stenography test

Typist
Otis
Typing test

Cashier
Cashier's arithmetic
Number cancellation
T 13
Card-sorting
Till test

Receiving Stockman R R K
Porteus
Arrangement
Address-copying

Receiving Messenger R R G
Delivery Helper D C H
Merchandise Check M C
Otis

Cash & C. O. D. Audits C A S, C A G
Otis
Number cancellation
Address-copying
Card-sorting

Receiving Marker R M M
Otis
Pins

Tube-room Switcher T T S
Otis
Number cancellation
Address-copying
Card-sorting

Selling Dept.'s Stock Clerk
Otis or Porteus
Arrangement
Receiving Porter R M P
Porteus

Tests for Placement

Promotional
Otis (30′)
Cashier's arithmetic
Number cancellation
Address-copying
T 13
Healy I
Healy II
M. C. (Merchandise Checker)
Otis (30′)
Cashier's arithmetic
Number cancellation
Address-copying
T 13
Card-sorting
Pin test

Otis: The Higher Examination: Form A of the Otis self-administering tests [1] is used to measure mental ability. It consists of seventy-five (75) questions of a wide variety of types and arranged in the order of difficulty. The instructions are printed on the first page and the test proper on the other three pages. The material is arranged in such a way that when the subject has read the directions and been told to begin, he may work at the test without interruption.

The test blank is presented to the subject right side up, and the examiner says: "Please fill in the blanks and answer the questions on this first page, but do not turn

[1] Published by World Book Company, Yonkers-on-Hudson, New York.

TEST NORMS

	Good		Fair		Poor	
	Speed	Accuracy	Speed	Accuracy	Speed	Accuracy
Cashier's arithmetic.....		18–22		12–17		0–11
Merchandise control arithmetic.....		10		8–9		0–7
Marker's arithmetic.....		12–14		8–11		0–7
Acct's Payable arithmetic ..		16–18		11–15		0–10
Number cancellation.....	3′30″ & under	0	3′31″–4′35″	1–2	4′36″ & over	3 & over
Address-copying.....	3′ & under	0	3′1″–4′5″	1–2	4′6″ & over	3 & over
T 13.....	3′15″ & under	0	3′16″–4′30″	1–2	4′31″ & over	3 & over
Card-sorting ..	2′4″ & under		2′5″–3′10″		3′11″ & over	
Pins.....	8′ & under		8′1″–10′30″		10′31″ & over	
Healy Completion II.....		73 & over		52–72		51 & under
Number-filing .	2′5″ & under	0	2′6″–3′42″	1–2	3′43″ & over	3 & over
Alphabet-filing.	7′5″ & under	0	7′6″–11′	1–2	11′1″ & over	3 & over
Till test.....	16½″ below		16⅔″–19½″		20 and over	

OUTLINE OF TESTS DISCUSSED

General Intelligence and Judgment Tests

1. Otis
2. T-1-A

Special Ability Tests

- Arithmetic
  - Cashiers'
  - Merchandise control
  - Markers'
  - Accounts payable
- Speed and Accuracy
  - Number cancellation
  - Address-copying
  - T 13
- Dexterity
  - Card-sorting
  - Pins
- Filing
  - Filing (Numerical)
  - Alphabetical filing
- Arrangement

Trade Tests

- Typing
- Stenography
- Letter Writing
  - Typed
  - Written
- Till Test

the page until you are told to do so." When the subject has done this the examiner looks it over to see that everything is filled in correctly, and then says, "Have you read the last paragraph carefully [pointing to the last paragraph on the first page]? Do you understand what you are to do? [If the subject does not understand, the instructions should be repeated and enlarged.] All right, turn the first page. Here are three more pages of questions to be done just as you did the samples on the first page. You will have twenty (20) minutes to work and

you will be told when your time is up. Go right ahead." The examiner should watch the subject to see that he draws a line under his answer and puts the number in the parentheses and that he does not write out the answer. No questions are to be answered after the test is begun. At the end of 20 minutes the paper should be taken away and scored. If the test is used for clinical purposes the 30-minute time limit is used in order to obtain a more accurate measure.

The correct answers to the 75 items are given on the margin of the Manual of Directions. The manual is placed over the examination paper so that the appropriate key is adjacent to the answers given by the subject and the correct answers are checked. If two or more answers are given for any item, the item is counted wrong. The score is the number of correct answers. It is transmitted into an Intelligence Quotient (I. Q.) by reference to a chart giving scores and their I. Q. equivalents (below):

Scores	I. Q.				
1– 5	none	21– 85	36–104	52–122	68–132
6–65		22– 86	37–106	53–123	69–133
7–67		23– 88	38–107	54–124	70–133
8–68		24– 89	39–108	55–125	71–133
9–69		25– 90	40–109	56–126	72–133
10–71		26– 91	41–111	57–126	73–133
11–72		27– 93	42–112	58–127	74–133
12–73		28– 94	43–113	59–128	75–133
13–75		29– 95	44–114	60–128	
14–76		30– 97	45–116	61–129	
15–77		31– 98	46–117	62–129	
16–78		32– 99	47–118	63–130	
17–80		33–101	48–119	64–130	
18–81		34–102	49–120	65–131	
19–82		35–103	50–121	66–131	
20–84			51–122	67–132	

If the 30-minute time limit is used the I. Q. may be found by adding to 100 the number of points scored and subtracting the norm for the subject's age. Since 42 is the norm for the adult level, the difference between 42 and 100, or 58, added to the score will give the I. Q.

Interpretation of I. Q.:

120 and above—very superior
110–119 —superior
90–109 —average
80– 89 —dull average
70– 79 —subnormal
60– 69 —borderline, mental defective
below 60—defective intelligence

For clinical purposes the I. Q. may be interpreted according to the above table.

T 1 A: The T 1 A (cf. sample 1) is a sentence-completion test made up of sentences chosen from other sentence-completion tests already standardized. It is used as a short intelligence test for applicants who have already been employed. There are twenty-five (25) sentences arranged in approximate order of difficulty and having from one to six blanks to be filled in. The instructions and two samples are given on the first page. The instructions are repeated at the beginning of the test on the second page.

The paper is presented to the subject with the first page, containing the samples, facing up. The examiner says, "Please fill in the blanks on this page, but do not turn the page until you are told to do so." When the blanks have been properly filled the examiner says, "Please turn the first page. You are to do the sentences on these two pages exactly as you did the samples on the first page. Remember to put only one word in a blank. You will have ten minutes to work and you will be told when your time is up. Go right ahead."

At the end of ten minutes the paper is taken away and scored according to the following criteria:

Criteria for Scoring T-1-A:

1. When the word or words make the sentence a universal or a general statement, full credit should be given, otherwise only half credit.
2. When the whole sentence is correctly completed it should receive full credit, while half credit is allowed for sentences sensible but not correct.
3. Words which have a more general denotation should be given full credit, while those with more particular meaning should receive half credit.
4. Words which make the sentence correct in English should be given full credit, while any error reduces the credit by half, providing the sentence is still sensible.
5. Words which fit in well with the rest of the sentence should be given full credit, otherwise only half.

When the total number of full and half credits is added it is multiplied by two to obtain the score. There are no definite norms aside from a critical score of 25 points, which serves to eliminate those in the lower intelligence levels.

The Cashier's-Arithmetic Test: The cashier's-arithmetic test (cf. sample 2) is intended to measure ability to do simple problems in arithmetic. The test consists of twenty-two (22) problems, eighteen (18) of which are taken from sales checks and four of which are problems in making change. The instructions for the subject are printed on the back of the paper.

The examiner places the paper on the desk face down, and says to the subject, "Please write your name and the date at the top of the paper and read the instructions carefully, but do not turn the page until you are told to do so."

When the subject has followed these instructions the examiner says, "Have you read the instructions carefully? You will have seven minutes to do these problems. You may do any extra figuring right on the paper. Work as quickly and as carefully as you can and you will be told when your time is up. Turn the paper and go right ahead."

The examiner watches the subject to see that he does not waste time totaling columns when it is unnecessary, that he does not skip any problems, and that he spends any extra time he may have looking over his paper. At the end of seven minutes the paper is taken away.

The score consists of the number of problems solved correctly, the number attempted, and the total number of problems in the test. For example, if the subject attempts seventeen problems and solves thirteen correctly, his score is expressed as follows: 13/17/22.

When only part of a problem is solved, no credit is given. When the answer involves a fraction that is half or more than half of one cent, it is correct only when the fraction is left or when one cent is added on for the fraction. If the fraction is less than half of one cent, it may be left or not counted.

The norms for the test are based on 2,177 cases, all applicants for various positions. The norms are as follows:

Good	18–22
Fair	12–17
Poor	0–11

If seventeen problems are solved correctly, the subject is rated fair plus; or if eighteen are solved, good, etc.

Accounts Payable Arithmetic: The accounts-payable arithmetic test (cf. sample 3) is intended to measure ability to do simple problems in arithmetic. However, it is slightly more difficult than the cashier's-arithmetic test.

It consists of three problems in addition, one in subtraction, one in multiplication and thirteen in making out bills. There are no printed instructions.

The examiner places the paper face up in front of the subject and says, "Please write your name and today's date at the top, but do not start work until you are told to do so." Then the examiner says, "You will have ten minutes to do these problems. You may do any extra figuring right on the paper. Work as quickly and as carefully as you can and you will be told when your time is up. Go right ahead." If the subject finishes before his time is up he is told to look over his work to find errors.

At the end of 10 minutes the paper is taken away and scored in the same way as the cashier's arithmetic.

The norms[1] are:

Good	16–18
Fair	11–15
Poor	0–10

Marker's Arithmetic: The marker's arithmetic test (cf. sample 4) is intended to test ability in fundamentals of arithmetic. It consists of fourteen problems—six in addition, five in subtraction, and three in multiplication.

The method of administration is the same as for the accounts-payable arithmetic test, and it is scored in the same way as the cashier's arithmetic.

The norms[2] are:

Good	12–14
Fair	8–11
Poor	0– 7

[1] These norms are based on the results of 84 people, all of whom were applicants for positions in the Accounts Payable Division of the Controller's Office.

[2] These norms are based on the results of 178 applicants for positions in the Receiving Department.

Merchandise Control Arithmetic: The merchandise-control arithmetic test (cf. sample 5) is used to measure ability in fundamentals of arithmetic, but it is more difficult than the marker's arithmetic test. It contains ten problems, all in addition and subtraction.

The method of administration is the same as for the accounts-payable, and it is scored in the same way as the cashier's.

The norms given below are based on 134 cases, all applicants for merchandise control positions.

Good	10
Fair	8–9
Poor	0–7

Number Cancellation: The Woodworth-Wells number-cancellation test (cf. sample 6) is used to measure speed and accuracy. It consists of 1,000 digits arranged in twenty rows of fifty digits each. The digits in each row are not arranged in any regular order, but there are five of each of the digits in each row. Instructions and a fore exercise are given on the back of the paper. The subject is to cross out every 1 and 7.

The test paper is presented to the subject with the instructions facing up. The examiner says, "Please fill in the blanks. Then read the instructions carefully and do what it tells you, but do not turn the page until you are told to do so." The examiner watches to see that the sample is done correctly (frequently the subject crosses out every first and seventh number) and then says, "Now, remember to cross out all the 1's and 7's. This is a test for both speed and accuracy, so work as quickly and as carefully as you can. Raise your hand as soon as you finish. All right, turn the paper and go ahead."

The subject is rated on speed and accuracy. The time required to complete the test is taken with a stop-watch

in number of minutes and seconds and compared with the norms to get a speed rating.

The accuracy rating is obtained by counting the errors and comparing the number of the norms for accuracy. Single errors consist of

(a) Failure to cross out a 1 or a 7,

(b) Crossing out any number other than 1 or 7.

The examiner should observe the subject during the test and make note of any peculiarities in behavior, such as working vertically instead of horizontally, doing two lines at a time, or skipping around without any system, etc.

The norms for the number concellation test are as follows:

	Speed	Accuracy
Good	3′30″ and under	0
Fair	3′31″–4′35″	1–2
Poor	4′36″ and over	3 and over

They are based on the results of over 2,000 applicants for a great variety of positions.

Address Copying: The address-copying test (cf. sample 7) is used to measure speed, accuracy, and legibility. On the left side of the page are six names and addresses, and on the right side are corresponding blanks in which they are to be copied. The instructions are printed on the back of the page.

The blank is presented to the subject with the instructions facing up. The examiner says, "Please fill in the blanks and read the instructions carefully, but do not turn the page until you are told to do so." When the subject has followed these instructions the examiner says, "Do you understand exactly what to do?" (If the subject does not understand, the written instructions should be explained and enlarged.) The examiner then says, "This is a test for both speed and accuracy, so work as quickly

and as carefully as you can. Raise your hand as soon as you finish. Turn the paper and go right ahead."

The time required to complete the test is taken and compared with the norms to get the rating in speed. By comparing the total number of errors with the norms the accuracy rating is obtained. Any deviation from the printed copy is an error. Following are the main types of errors.

(a) Abbreviation where there is none in the copy
(b) Failure to abbreviate where there is an abbreviation in the copy
(c) Omission of part of a name or address
(d) Misspelling
(e) Insertion of material not present in the copy
(f) Change of wording.

Legibility is necessarily a purely subjective rating. The examiner merely looks at the writing and decides whether it is good, fair, or poor, depending on the ease with which it can be read. As a rule, two people rate the legibility in order to get a fairer rating.

The norms for speed and accuracy are as follows:

	Speed	Accuracy
Good	3′ and under	0
Fair	3′1″–4′5″	1–2
Poor	4′5″ and over	3 and over

They are based on the test results of 1,713 people applying for various positions.

T 13: The T 13 test (cf. sample 8) is used to measure speed and accuracy. It consists of fifty groups of two items each. In some groups the items are exactly the same and in others they are different. The subject is to write an S between the two items if they are the same, and a D if they are different. There are several types of items—

groups of digits, names of people, groups of letters, and geometrical figures. The instructions and a sample are given on the back of the paper.

The paper is presented to the subject with the instructions facing up. The examiner says, "Please write your name, then read the instructions carefully and do what it tells you, but do not turn the page until you are told to do so." When the subject has followed these instructions the examiner says: "All right, that is the way it is to be done. This is a test for both speed and accuracy, so work as quickly and as carefully as you can. Raise your hand as soon as you finish. Turn the paper and go right ahead." If the subject skips a group and fails to go back to it, he should be given back his paper and told to finish.

The time required to do the test is taken with a stop watch in minutes and seconds and compared with the norms to get a rating on speed. The accuracy is obtained by comparing the number with the norms for accuracy. The norms are as follows:

	Speed	Accuracy
Good.....	3′15″ and under	0
Fair.....	3′16″–4′30″	1–2
Poor.....	4′31″ and over	3 and over

Card-Sorting: The card-sorting test is a test for manual dexterity. It is of value chiefly in connection with work where the response is of the multiple choice type, such as sorting sales checks, making change, etc.

The test is made from two packs of playing cards from which the picture cards, but not the aces, have been removed. This leaves eighty cards and these are arranged in chance order by shuffling them. (The same order is always maintained by numbering the cards on the back and rearranging them each time the test is given.) Be-

sides the playing-cards, four pieces of cardboard of the same size as the cards are used to show the subject where to place the cards, These are labeled Red Odd, Black Odd, Black Even, and Red Even. Each black card has a club and a spade pasted on it, and each red card has a heart and a diamond on it to show the subject that the cards are not to be separated into suits.

The examiner places the guide cards before the subject in this order

Red	Black
Odd	Even
Black	Red
Odd	Even

Subject

Then the examiner says: "You play cards, don't you? Are you familiar with playing-cards?" If the subject says he is familiar with cards, the examiner says: "Here is a pack of cards that contains no pictures, just numbers, except for the aces, which stand for ones. Now you know what odd and even numbers are. The odd numbers are 1, 3, 5, 7, and 9; and the even numbers are 2, 4, 6, 8, and 10. Would the aces be odd or even? [If the subject says the aces would be even he is corrected.] Now you are to put all the red cards with odd numbers here [examiner points to the proper guide card], all the black cards with odd numbers here [pointing], and all the black cards with even numbers here [pointing], and all the red cards with even numbers here [pointing]. Do you understand? All right. Work as quickly and as carefully as you can and raise your hand as soon as you finish."

For those who are not at all familiar with playing-cards the following instructions are given: "Here is a pack of cards. You see some are red and some are black. They are all numbered, except that some have A's on them. The

A's will stand for ones. Do you understand? Now you know what odd and even numbers are." From this point the instructions are the same as for those who play cards. As the examiner finishes the instructions she hands the subject the pack of cards and starts the stop-watch. When the subject has finished the examiner looks for errors. An error consists in putting any card in the wrong pile.

The norms for speed are:

Good	2′4″ and under
Fair	2′5″–3′10″
Poor	3′11″ and over

There are no norms for errors and accuracy is of little importance unless the subject makes a great many errors. In such a case a note is made of it and it is taken into consideration in rating the subject's dexterity.

It is important that the subject be watched during this test in order to observe the degree of ease and precision with which he handles the cards and any signs of nervousness or confusion.

Pins: The pin test[1] is used as a measure of ability to handle small objects quickly and dexterously. It consists of a board measuring ¾″ x 5¾″ x 12″. One half of the board is drilled with 100 holes ¾″ deep, 3/16″ in diameter, and placed at intervals of ½″ in each direction. The other half of the board is hollowed out to form a tray 4¼″ x 4¼″, and with slanting sides. This tray should contain at least 300 pins, preferably a few more.

The examiner says to the subject, "Are you right- or left-handed?" If the subject is right-handed, the board is placed before him so that the tray of pins is on his right; if he is left-handed, it is placed on the left. Then the examiner says, "All right. Keep your (right or left) hand at your side. You are to put three of these pins in each

[1] O'Connor finger-dexterity test.

of these holes, using only your (right or left) hand. You are to pick up three pins at a time. [Examiner picks up three pins to demonstrate.] Do you understand? Work as quickly as you can and raise your hand as soon as you finish."

The subject is timed in minutes and seconds with a stopwatch and his rating is based on time alone. The norms are based on the results of 146 people, nearly all applicants for positions in the Receiving Department. They are as follows:

Good	8′ and under
Fair	8′1″–10′30″
Poor	10′31″ and over

Number Filing: The number-filing test (cf. sample 9) is used to measure ability to file in numerical order. It consists of twenty-five groups of eight numbers each, arranged in order of size. The numbers in each group are separated by dashes, and at the left of each group of numbers is a number to be filed in its proper place in the group. There are four samples at the top of the page.

The paper is presented to the subject with the top folded back so that only the samples can be seen. The examiner says, "Please write your name and today's date at the top. This is a test for filing numbers. If you were filing No. 34 in this first row it would come between 20 and 40 because it is larger than 20 and smaller than 40, so put a check between 20 and 40. [Examiner points to the number 3 as she speaks and puts the check in the proper place.] Now where would you file No. 65 in the second row [pointing]? Now do the others in the same way." When the subject has done all the samples correctly, the examiner says: "Do you understand? Now do these the same way. [The examiner presents the full sheet of numbers to the subject.] Work as quickly and as

carefully as you can and raise your hand as soon as you finish. Go right ahead."

The time is taken with a stop-watch in minutes and seconds and compared with the norms to obtain a speed rating. The number of errors is found by placing a card perforated where the correct answers should be over the test paper, and checking the spaces where no answer appears. The number of errors is compared with the norms for accuracy. The norms are obtained from 80 cases. They are as follows:

	Speed	Accuracy
Good.....	2′5″ and under	0
Fair.....	2′6″–3′42″	1–2
Poor.....	3′43″ and over	3 and over

Alphabet Filing: The test for alphabetical filing[1] (cf. sample 10) is more complicated than the numerical filing test in that it involves two processes—simple filing and arranging in alphabetical order.

It consists of the names of thirty-seven men followed by the cities in which they live, on one side of the paper. On the other side are the names of the cities (ten in all) with blanks for the names of the men under each. The instructions are printed at the top.

The examiner places the test paper before the subject and says: "Please write your name and today's date at the top of the paper and read the instructions carefully, but do not start work until you are told to do so. Now remember, each name is to be written under the proper city, and all the names under each city are to be in alphabetical order. You may do any writing on the paper that you wish. Do you understand? Work as quickly and as carefully as you can and raise your hand as soon as you finish. Go right ahead."

[1] Taken from Thurstone clerical test.

The time is taken with a stop-watch in minutes and seconds. The errors are found by comparing the subject's results with a test blank correctly filled in. Time and errors are compared with norms. The norms are based on 99 cases and are as follows:

	Speed	Accuracy
Good	7′5″ and under	0
Fair	7′6″–11′	1–3
Poor	11′1″ and over	4 and over

Thurstone Typing: The Thurstone typing test [1] is used to judge ability in typing. It contains two tests which are samples of the kind of work a typist may be called on to do, such as typing from a corrected copy (Test I) and tabulating material (Test II). Ability in spelling is also tested (Test III).

Thurstone's method of administering has been altered slightly to suit our purposes. The examiner seats the subject at the typewriter and gives him a blank sheet of typing paper, saying, "Please insert this paper and type your name and today's date at the top." When the subject has done this, the examiner places the material for Test I (Test II is folded back so it cannot be seen) on the desk at the left of the typewriter, and says: "Please read the instructions for Test I and follow them carefully. Raise your hand as soon as you finish Test I." When the subject has finished Test I, Test II is turned up. The examiner gives the subject the paper for Test II for mimeographed copy of Thurstone's printed form (cf. sample 11) and says, "Read the instructions for Test II and go right ahead with it on this paper. Raise your hand as soon as you finish Test II." When the subject has finished Test II the examiner gives him a pencil and says, "Take this pencil and go right ahead with Test III. Raise your hand

[1] Published by the World Book Co., Yonkers-on-Hudson, New York.

as soon as you finish." (Test III is printed on the same paper as Test II.)

The time is taken with a stop-watch for each of the three tests separately, for the purpose of securing norms for each of the tests. (Thurstone timed the test as a whole.) The time for the three tests is added and half or more than half a minute is counted as a whole minute. The rating in speed is obtained from Thurstone's norms.

Accuracy is rated by finding the total number of errors and comparing it with Thurstone's norms. The error score in Test I is found by giving one point for each erasure or corrected error, and 2 points for each uncorrected error. Errors include the following:

Striking the wrong letter
Improper spacing
Omission of a word
Transposition of words or letters
Piling letters at end of line or elsewhere
Failure to start line at starting-point
Deviation from copy in punctuation, paragraphing, capitalization, etc.
Faulty use of shift key
Lack of uniformity in paragraphing—*i.e.*, indentations of different lengths or indenting for one paragraph and blocking for another.

Only one error in any word is counted. The error score in Test II is found by giving 1 point for each corrected error and 2 points for each uncorrected error. Errors include, in addition to those mentioned in Test I, any failure to align the initial letters of the items in columns 1, 2, and 4, or the decimal points in column 2.

The following arrangements for Test II are considered correct, any other arrangement is an error: the items may be arranged as they occur in the original copy in chronological order, in order of amount, beginning either with

largest or smallest, in alphabetical order by states, in classes according to manner of shipment. The error score in Test 3 is found by giving one point for each error. Errors include failure to mark misspelled words and marking correctly spelled words.

By adding the total time and errors a combined score is obtained which can be rated according to Thurstone's norms.

The norms are as follows:

Time Score	Error Score	Combination	Rating
14 and under.....	0–10	30 and under	A—Expert
15–24.....	11–20	31–50	B—Journeyman
25–29.....	21–30	51–70	C—Apprentice
30–34.....	31–50	71–80	D—Novice
35 and over.....	51 and over	81 and over	E—Novice

Stenography: The stenography test is used to measure ability to take dictation in shorthand and transcribe the notes on the typewriter. It consists of 420 words (sample 12).

The subject is seated at a desk and given a stenographer's notebook opened at a clean page and three or four pencils. The examiner says: "Please write your name at the top of the page. Will you please take this dictation? If I go too fast or too slowly for you, tell me. I will gauge my speed according to you, but work as quickly as you can. Ask me to repeat anything you miss." The examiner then dictates the material clearly and as quickly as the subject can take it. She takes the time for dictation with a stop-watch. When the subject has taken the dictation she is seated at the typewriter and given a blank sheet of paper. The examiner says, "Please insert the paper and adjust the typewriter for single space. Type your name and today's date at the top of the paper. Transcribe your notes as quickly and as carefully as you can. Raise your

hand as soon as you finish." The time is taken with a stop-watch.

When the subject has completed the test the paper is scored by reference to a correctly typewritten copy.

The score is found by multiplying the sum of the dictation time and the transcription time[1] by ten and adding the number of errors.

The norms are:

Expert—0-225, inclusive, with less than 13 errors.
Journeyman—0-225, with more than 13 errors and less than 26 errors.
Apprentice—0-300, with more than 26 errors.
Novice—300-500, regardless of the number of errors.

If either the speed or accuracy is unusually good or poor a note is made of the fact.

Arrangement Test: The stockmen's arrangement test is intended to measure ability to arrange merchandise according to stock-room methods. The test consists of 135 black cards on which have been painted white designs. The cards are made in three shapes, triangles, trapezoids and circles and they bear three designs, ○, △ and ⏢. There are also three sizes. Thus there are twenty-seven different kinds of cards, there being five of each of the above.

The examiner seats the subject before a large empty table and places before him the box containing the cards which have previously been thoroughly mixed up. He then says: "Suppose that you are the stockman in charge of the merchandise in this box. You will be asked to fill orders for these cards as quickly and as correctly as you can. Show me how you would keep them on a shelf so as to make it easy to pick out what is ordered. Do you understand? [If the subject does not understand, the in-

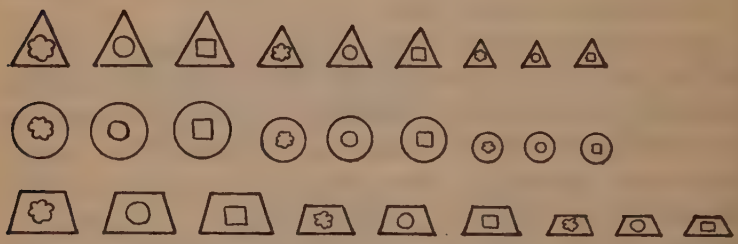
[1] Thirty seconds or over is counted as another minute.

structions are repeated and enlarged without any hint as to how the test is to be done.] All right. You have this whole shelf to work on." When the subject has finished the test the examiner says, "Now look it over and make sure it is just as you want it." The subject is then allowed time to make changes.

The test is rated on the basis of completeness and accuracy of classification. At present the test is in the process of development and no norms have been established. A subjective rating is secured from two or more examiners.

Following are examples of test results that have been obtained:

I

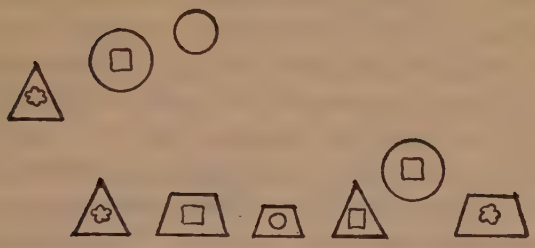


The above was rated very good because all three classifications were carried out to the full extent.

II

The above was rated fair because it followed a twofold classification.

III



The above is rated poor because no classification is followed.

Correspondent Letters: This test is used to judge a person's ability to write letters answering complaints and making an adjustment. The subject is given the necessary information and is told briefly what to do. There are nine letters in all, three to be composed on the typewriter, three to be written in long hand, and three for the subject to dictate to the examiner.

There is no special order in which the test should be given. When the typed letters are given, the subject is seated at a typewriter and given six sheets of paper. (The subject is asked to make carbon copies of each letter.) The examiner gives her the three cards with the information for typing the letters and says, "Here are three cards with a certain amount of information on each card. You are to type three letters, using just the information given on these cards. Please put your name at the top of each sheet of paper and make a carbon copy of each letter. Raise your hand as soon as you finish." When the subject has finished the letter she is given six more sheets of paper and the cards for the written letters. The examiner says, "Now you are to write letters for these three cards in the same way. Please write your name at the top of the paper and make a carbon copy of each letter." For the dictated letters the examiner says, "Please dictate letters to me,

using the information given you on these three cards." The examiner makes a carbon copy of each letter.

The rating given on the letters is mainly subjective. They are read by at least two people who agree on a rating. However, a general rule may be followed: If the subject has not used the information she was given, the letter is poor; if she has used it but the letter is not well written, it is fair; if the letter is well written and contains all the necessary material, it is good. The subject is given a rating on typed, written, and dictated letters separately, because the test situation presented for the different sets varies so much, and consequently there is a variation in the mental set of the subject.

Till Test: The till test is an imitation of the tube-room situation. At present it is given to cashiers who have been employed before they have had any training.

The material used for test is as follows: The top of a desk is cut so that it opens. The opening is 14 inches wide, 18 inches long, and 6¼ inches deep. At the front of the open space there are five change tills for pennies, nickels, dimes, quarters, and half-dollars. The space on top of the desk at the right is supposed to represent the moving belt which brings the cash carriers. The space at the left is used to work on. There are ten carriers and a sample used for demonstration. Each carrier contains the original and duplicate of a sales check and as much as is stated at the top of the sales check.

The examiner seats the subject beside the desk and sits in front of the open part of the desk herself. She says to the cashier: "This is a sample of a cashier's desk in the tube room. On one side [pointing to the right side of the desk] a moving belt brings you the carriers. On the other side (pointing to left side of desk) is a place to rest your carrier while you are making change. Now this is the way you are to do this test. [Examiner demonstrates each step

from this point on using sample carrier.] Pick up the carrier and open it. Take out the sales check and notice that the amount of money received is the same as the amount at the top of the sales check. Put the money where it belongs. Then notice the amount of the purchase. Put the proper change back into the carrier. Tear apart the sales check and keep the part marked 'original.' Be sure you keep the 'original.' Fold the other part this way and place it in the carrier on top of the change. Then close the carrier so the sales check doesn't show. Do you understand? All right. Will you be seated here?"

The examiner takes the time for each carrier with a stopwatch. The rating is found by taking the average of the time for the last five trials (the first five are considered a learning period) and comparing it with the norms. The norms are based on the results of ninety-seven people who had never had any experience in a Macy tube room. They are:

Good	16 1/5″ and under
Fair	16 2/5″–19 4/5″
Poor	20″ and over

TEST SAMPLES

SAMPLE 1.

MAKE A PERFECT SENTENCE OF EACH OF THE FOLLOWING:
ONLY ONE WORD ON A BLANK

1. The sky.....blue.
2. Ice is cold, but fire is.....
3. I.....to school each day.
4. The.....plays.....her dolls all day.
5. The girl fell and.....her head.
6. The wind.....the dust into our eyes.
7. The boy will.....his hand if.....plays with fire.
8. The.....rises.....the morning and.....at night.
9. The boy who.....hard.....do well.

SAMPLE 2.

ARITHMETIC TEST

1. Add .23 / .47

2. Add $9.44 / 1.86

3. Subtract $4.69 / 1.34

4. Multiply 42.25 by .51

5. Add 1.04 / .98 / .69 / 3.52 / 6.09 / 2.48 / .94 / 5.74

6. 2 books @ $ .74 =
and 2 books @ $ .67 =
Total

7. 2 pkg. dates @ $ .84 =
and 2 boxes fruit @ $ .94 =
and 1 pkg. bran @ $ .19 =
and 1 pkg. wafers @ $ .32 =
$
Total

SAMPLE 3.

ACCOUNTS PAYABLE—ARITHMETIC TEST

1. Add
649.23
1,135.47

2. Subtract
3,280.24
671.39

3. Multiply
3,942.25
.67

7. 5 packages dates @ $ .79 =
and 3 boxes fruit @ $1.48 =
and 1 package bran @ $ .19 =
and 2 packages wafers @ $. 37 =
Total

8. 13 yds. carpet @ $ .56 =

SAMPLE 4.

Score

MARKER'S ARITHMETIC TEST

Name: Date:

1. Subtract:
$50.00
39.07

2. Add:
3,275
5,449
660

3. Subtract:
$100.00
73.98

4. Add:
781.98
333.09

8. Add:
$19.75
71.43
89.25
13.78
9.24
11.50

9. Add:
$103.10
7.52
94.89
17.17
123.08
8.46
.69
108.75
19.17

SAMPLE 5.

MERCHANDISE CONTROL ARITHMETIC

Name: Score:

Date: Time:

1. Add 127
375
953
333
325
911
554
167
554

4299

2. Add 632
263
318

6 & 7. Subtract 163,130
− 91,061

74069 Ans. I

Subtract 105,755
− 90,863

Ans. II

Subtract Ans. I
Ans. II

Ans. III

SAMPLE 6.

```
5168492370127504869341890256371756089243786904312 5
7805134269240976153832041579684812673905379086521 4
3597846102518237496085932410769345208617931675840 2
2739650814973615028404785962130931564872423567908 1
42530179 8638609154729367480125649312075861274905 38
9470385621609382714578109643525279416380104823795 6
0982561743835469201760213795842184957036095218674 3
1046279538062843975127456038913507842169568192437 0
8614923057451728630919568327408620735491247350186 9
6321708495794150382656327184097068391524850431269 7
7962134058425193860790481723656283051497594807123 6
9681053742194537026804723865919036827154750329416 8
0734291865961248705319830654721579348260835972640 1
3476812590630759481248597312067102964538347165289 0
6597328401083614972525346901875417283906126583074 9
8350947216857021394652108476392745190683689710352 4
1809765324278465139031269587404820516379418056937 2
2048576139716802543967014239580694732815201648795 3
4125680973509376218486975140238351679042962431508 7
5213409687342980657173652098143968405721073294861 5
```

SAMPLE 7.

You are to copy the names and addresses on the other side as quickly and as carefully as you can. Write each address on the lines provided for it on the right hand side of your paper. *Write clearly and accurately. You will be timed, so work quickly.*

The printed "M" marks the place where you are to begin copying the name, so do not rewrite the "M." Copy everything as you see it, making no changes.

DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO.

M

Mr. Landes V. Hartjes

8394 Oakmere Blvd.
Passaic
New Jersey
Apt. 3D

M

Mr. Jason F. X. Flaherty

2380 W. 11 St.
Hamilton
Ontario
Canada

SAMPLE 8.

Score.....M.....

T 13

Write your name here.....

If the two things on each line are the same, write S on the dotted line between them. If they are different write D on the dotted line between them. Work as fast as you can, but make no mistakes.

471 471

If the two things on each line are the same, write S on the dotted line between them. If they are different write D on the dotted line between them. Work as fast as you can, but make no mistakes.

720	 720	91227925	... 92117925
195	 199	430617378	... 430617378
4726	 4726	205197562	... 205917562
8055	 8055	426624808	... 426624808
15980	 18950	2350061788	... 2350061788
Jameson K. P.	... Jameson K. P.	2241630764	... 2231640764
Baker S. A.	... Baher S. A.	2566520225	... 2566520225
Wendel A. L.	... Wendel A. M.	535566682	... 535665682
Danforth W. H.	... Danforth W. H.	8617560394	... 8617560394
Darey C. E.	... Darcey C. E.	4694221506	... 4694220506

SAMPLE 9.

NUMERICAL FILING TEST

Sample:

34	10——20——40——50——60——70——80——90
65	15——25——35——45——54——63——72——86
456	100——235——356——460——542——689——700——830
18760	10090—11678—12456—13654—14080—15700—16245—17340

25	10——15——20——30——35——40——45——50
70	5——24——35——40——63——71——82——90
38	17——19——21——31——35——37——45——48
49	35——42——50——58——67——78——89——92

SAMPLE 10.

Below is a list of names of men followed by the cities in which they live. You are to write the names of the men in the blank spaces under their respective cities. Write the names under each city in alphabetical order. Both speed and accuracy are important.

Name	City	Baltimore	New York
Black,	Chicago		
Everett,	Baltimore		
Ward,	Buffalo		
Smith,	Philadelphia		
Thompson,	Minneapolis		
Dixon,	Pittsburgh		
Barton,	Rochester		
Mayer,	Boston		
Newton,	New York		
Murphy,	St. Paul		
Johnson,	Pittsburgh	Boston	Philadelphia
Thomas,	Philadelphia		
Wells,	St. Paul		
Howard,	Buffalo		
Lawrence,	Chicago		

SAMPLE 11.

NAME..... DATE.....

TEST 2

STATE	AMOUNT OF PURCHASE	HOW SHIPPED	DATE

TEST 3.—The following list contains a number of words, some of which are misspelled. Draw a line through each misspelled word. Do not mark the correct words.

address	superintendent	bulletin	ascertain
referred	essential	supersede	advertise
bookkeeping	privilege	agreeable	guarantee
changeable	systematize	indebtedness	ninteenth
miscelaneous	alright	ommitted	serviceable
preferable	seperate	occasionally	secretary
corroborate	procede	goverment	dependent
committee	awkward	advisable	already
compeling	accomodate	dissatisfaction	withold
comparative	noticeable	appreciate	fullfill
maintenence	seize	accessable	beginning
transferred	recurrence	column	disappoint

Error score....

Do not write here

	Test 1		Test 2	
Errors corrected...	( )		( )	Total time
Er. uncor. ( )×2.	( )	( )×2	( )	Total errors
Error score (Sum)..	( )		( )	Combined score

Rating.....

SAMPLE 12.

Stenography Test: The stenography test is used to measure ability to take dictation in shorthand and transcribe the notes on the typewriter. It consists of 420 words, as follows:

This is the kind of ambition which creates things and which pushes the world along. An ambition to do or to be, to produce or to master something and which never for an instant loses sight of the point first aimed at unless it be to aim at some point which is still higher and still harder to hit. That sort of ambition consists of only two elements, work, etc.

The subject is seated at a desk and given a stenographer's notebook opened at a clean page, and three or four pencils. The examiner says: "Please write your name at the top of the page. Will you please take this dictation? If I go too fast or too slowly for you, tell me. I will gauge my speed according to you, but work as quickly as you can. Ask me to repeat anything you miss." The examiner then dictates the material clearly and as quickly as the subject can take it. She takes the time for dictation with a stop-watch. When the subject has taken the dictation she is seated at the typewriter and given a blank sheet of paper. The examiner says: "Please insert the paper and adjust the typewriter for single space. Type your name and today's date at the top of the paper. Transcribe your notes as quickly and as carefully as you can. Raise your hand as soon as you finish." The time is taken with a stop-watch.

When the subject has completed the test the paper is scored by reference to a correctly typewritten copy.

The score is found by multiplying the sum of the dictation time and the transcription time[1] by ten and adding the number of errors.

The norms are:

Expert—0–225, inclusive, with less than 13 errors.
Journeyman—0–225 with more than 13 errors and less than 26 errors.
Apprentice—0–300 with more than 26 errors.
Novice—300–500 regardless of the number of errors.

If either the speed or accuracy is unusually good or poor, a note is made of the fact.

[1] Thirty seconds or over is counted as another minute.

APPENDICES

Forms Used in Studies: There are many objections to the use of "forms" inasmuch as they restrict and limit the investigator to certain routine headings and do not provide for exceptional cases or cover all the possible situations that arise in any given problem. Nevertheless, to the inexperienced investigator they serve as an invaluable guide and outline, and further they make possible statistical comparisons in dealing with large numbers of cases.

Our own case record includes the following:

(1) Social history (form attached).
(2) Physical examination (no form attached).
(3) Intelligence and special ability tests (Otis general); intelligence tests, Porteus maze and other test forms which are included under chapter dealing with psychological tests).
(4) Personality inquiry (form attached).
(5) Psychiatric work investigation—Job behavior (form attached).

APPENDIX A

Social History

NAME STAFF NO. DATE

Sex: Age: Date of Birth: Race:

Referred by:

Problem:

Developmental History

Birthplace (in U. S. how long?)

Childhood with parents or others?
Any childhood difficulties?

Past Health History

Physical development and health in childhood
Fainting spells, convulsions, etc.
Accidents
Operations
Diseases and defects (give details)

Present Health History

Appetite
Digestion
Sleep
General fatigue
Headaches
Eye strain
Constipation
Dizziness
Menstrual Difficulties
Eyesight
Hearing
Feet
Amputations
Nose and Throat conditions
Teeth
Other conditions
General physical condition:

Home and Family

Nativity of father
Nativity of mother
Father living Health Employment
Mother living Health Employment
Residence of parents
Number children in family Ages:
Number at work
Residence of Individual

Married Children Ages:
Living with Husband / Living with Wife } (If not, give details)
Economic status:
Dependents: (number) partial or total?
Domestic situations:
Problems: none, mild, serious
financial, friction, health, other:

Education

Grade reached in school
Did he apply himself well?
Age at leaving school
Why did he leave?
Was he retarded? Why?
Going to school at present? (give details)
Special vocational training? (give details)
Future educational plans:

Store Record

Employment History (individual's own work story given in detail) What did he do? How did he like it? How long did he stay? Why did he leave? How long between jobs? etc., etc.

Character of Place *Nature of Work* *Salary* *Why he left*

Rate: regular, irregular, casual, seasonal, during school.
Remarks:

APPENDIX B

Personality Study

NAME .....
DATE.....19....

(A constant attitude of watchfulness and understanding is required. This examination should not be done hurriedly.)

Facial Expression. Does the employee look fearful, anxious, sad, gay, hostile, suspicious, visionary, expressionless, intent, arrogant, fatigued, interested, indifferent, alert, detached, etc.?

Appearance. Is he neat, careful of details, well-groomed, smart, stylish, slovenly, neglectful?

Movements. Are there movements of the body, of the head, of the face? Are there rhythmic quiverings of the mouth? Are there wrinklings of the forehead, peculiar facial expressions, attitudes of the body, nervous twitchings of the hands, licking of the lips, biting of the nails? Mannerisms or tics.

Speech. Is the voice well modulated, pinched, strained, small, or large and full? Does he stammer or stutter, or slur, or jumble his words?

Mental Attitude Toward:

I. Job Itself

(a) What is the nature of his work?
(b) Work motive
(c) How long has he been in this particular job? In this dept.?
(d) Does he like his present job? What particular phases of the work is he especially interested in? Indifferent to? Dislike? Why does he feel this way?
(e) Does he feel that his work gives him opportunity for advancement or training valuable for the future?
(f) Attitude toward salary? Commissions?
(g) Interviewer's observations of attitude shown during individual's descriptions of the job—interested—stimulated—indifferent, etc.

II. Job Environment

Are there any conditions such as draughts, poor ventilation, excessive noise, etc., that make it difficult to work in this department?

Is the work fatiguing? Are there any particular work conditions affecting the health (and producing fatigue, eye strain, difficulty with feet, etc., etc.)?

III. Relationship with Others

Attitude Toward Coworkers. Does he prefer to work with others or independently? Does he feel that he is a good team-worker and enjoys the association with his fellows or do they irritate him? Is he helpful to coworkers? Does he see them outside of the store? Are they interesting?

Attitude Toward Superiors. Does he feel at ease under supervision? Does he like to work under authority or is he rebellious? Is his relation to his supervisor a happy and to him satisfactory one, or not? Are his supervisors fair, helpful, or aloof? Do they show him what to do?

Attitude Toward Customers. Does he like to serve others and does he enjoy the customer—sales clerk relationship? Does he like to take time and go into details or not? Does he promptly bring a sale to conclusion or does he have difficulty in this connection? Does he chat with customers unnecessarily? Does he aid the customer in making up her mind? Is he conscientious about satisfying the customer? Does he enjoy showing her different things or does he wait to be asked? Does a cranky customer irritate or upset him?

Vocational Interests and Work Ambitions. What are his vocational interests and work ambitions? Definiteness and stability—Avocation?

Attitude Toward Home. Is he entirely happy at home? How does his family treat him? Is family closely united? Are there family feuds? Do his friends live near him? Is his neighborhood nice? Is his home comfortable and inviting?

Recreational Interests. What did he do last evening, night before last, etc.? Does he have a lot of

friends? Does he make new friends easily? How many nights does he spend at home? What does he do there? What are his interests and recreations? Does he like to sit and think about things? Does he dream or think much about the future—get the content of such thought?

Habits. Get daily routine. Is he regular, methodical, or haphazard in his work, meals, recreation, sleep, household and personal duties, exercise, taking medicine, etc.?

Self-Estimate—Mental Attitude Toward His Personal Difficulties. What is his attitude toward his physical disorders and defects? Does he complain of being ill? Does he feel at a disadvantage, inferior, ashamed, shy, and timid, or superior and well satisfied with himself? What is his attitude toward his own achievements or failures? Does he worry or get discouraged, depressed, melancholy, dissatisfied, blue at times? Is he nervous, easily hurt, sensitive or always happy, carefree and optimistic? Does he have insomnia or dreams? Is he serious-minded, quick-tempered, etc.? (Give this information in detail, and why he feels as he does.)

Psycho-neurotic and Psychotic Symptoms. Fatiguability, irritable weakness, inability to concentrate for any length of time, pessimistic moods, symptomatic depressions, undue attention to functionings of bodily organs, periods characterized by cardiac disturbances, difficulty in breathing, profuse perspiration, trembling, shaking, disturbance of appetite, gastric distress, diarrhea, dizziness, etc.; pathological fears, feelings of uncertainty and doubt, fixed ideas, compulsions, delusions, hallucinations, memory disturbances, etc., etc.

INDIVIDUAL'S OWN STORY

SUMMARY AND REMARKS

A.

SPECIAL CHARACTERISTICS OF THE PERSONALITY

(Rate on scale from high to low by checking)

appearance	High	Low
neatness		
smartness		
stylishness		
suitability to present job		
pleasantness		
alertness		
responsiveness		
accessibility		
frankness		
talkativeness		
convincingness		
ability to express self		
sincerity		
liveliness		
poise		
aggressiveness		
initiative		
forcefulness		
self-reliance		
dominance		
submissiveness		
self-confidence		
self-depreciation		
originality		
rational thinking		
planning ability		
common sense		
shrewdness		
memory		
concentration of attention		

SPECIAL CHARACTERISTICS OF THE PERSONALITY

Continued

tendency to day-dream ....
tendency to confusion .....
tendency to worry .....
persistence .....
thoroughness .....
carefulness .....
impulsiveness .....
steadiness of application ...
industry .....
conscientiousness .....
assumption of responsibility
dependability .....
cooperation .....
sociability .....
understanding of others ....
effectiveness of contacts ...
social adaptability .....
purposefulness .....
ambition .....
definiteness of ambition ....
drive .....
enthusiasm .....
stability .....
adaptability .....
sense of reality .....
maturity .....

B.

PERSONALITY TYPES

extrovert .... introvert
hyperactive .. hypoactive

emotional—paranoid—egocentric—inadequate—
intellectual—emotional—motor, sensory—etc.

MOOD: cheerful—elated—optimistic—depressed—irritable—pessimistic—phlegmatic—etc.

	Good	Poor
INTEGRATION		
INSIGHT		
ATTITUDE		
work		
supervisors		
subordinates		
associates		
customers		
INTEREST		
In present job		
PERSONALITY		
DIFFICULTIES		
none		serious

Specify:

PSYCHIATRIC DIAGNOSIS

psychoneurosis
psychopathic personality
psychosis
epilepsy
conduct disorder
speech defect
feebleminded
organic brain disease
unclassified

TYPE OF CASE

suited to job
job misfit
personality maladjustment
promotional
_____
transfer
applicant

APPENDIX C

Job Behaviors Form

SALES INVESTIGATION

I. Selling Technique

A. *Approach.* Is it prompt, pleasant? Does she have to be called? Is she a grabber?

B. *Knowledge of Merchandise and Stock.* Does she have fundamental information about the merchandise? Does she know the arrangement of stock? What is in stock?

C. *Display.* Does she show merchandise voluntarily? Does she talk about it intelligently?

D. *Manner.* Does she show interest? Is she courteous and pleasant? Does she help a looker?

E. *Suggestive Selling.* Does she suggest other merchandise to the customer? Make other suggestions?

II. Stock Work. Is it neat, orderly? Does it require supervision?

III. Behavior Toward Other Clerks. Is she pleasant, helpful, adjustable to old clerks? To new clerks?

IV. Contact With Section Manager

A. *Cooperation.* Is she willing to be moved about? Take exchanges willingly? Obey store regulations? Overtime?

B. *Discipline.* How does she accept it?

C. *Supervision.* Does she require checking up in any way?

V. Contact With Buyer, Assistant Buyer, Head of Stock. What is her sales record? Other comments of superior?

VI. Appearance

VII. Summary—Remarks

INDEX

Abnormal Psychology, McDougall, 193
Address-copying test, 325
Alphabet-filing test, 331
American Orthopsychiatric Association, xiv
Appendices, job behaviors form, 358
  personality study, 351 *et seq.*
  social history, 349 *et seq.*
Arithmetic tests, 331 *et seq.*
Arrangement test, 335 *et seq.*
Associated Industries of Massachusetts, xiv
Auto drivers, case studies, 281 *et seq.*
  examinations, 266 *et seq.*
  old drivers, 271 *et seq.*
  psychiatric studies, 276 *et seq.*
  qualifications, 278, *et seq.*, 286 *et seq.*
  rating of typical good, 288 *et seq.*
  safe operation, 268
  testing, 269 *et seq.*

Bonus plans, 127 *et seq.*
Boston Board of Trade, xiv
Business, promotional material, 49 *et seq.*
  psychological tests, 294 *et seq.*
  surveys, 108 *et seq.*
  work failures, 8 *et seq.*
  (*see also* Industry *and* Personnel)

Canadian National Committee for Mental Hygiene, xiv
Card-sorting test, 327 *et seq.*
Cashiers, arithmetic, 321
  case studies, 145 *et seq.*
Cashiers—(*Continued*)
  criteria, 211 *et seq.*
  tests, 306 *et seq.*, 321
Columbia University, xiv
Correspondent letters test, 337

Department, managers (*see* separate titles)
  promotions, 120
  supervision, 118 *et seq.*
  surveys, 115 *et seq.*, 128
Department managers, re-education, 155
  survey information, 128

Executive selecting, 49 *et seq.*
  candidate study, 51
  case studies, 58 *et seq.*, 73 *et seq.*
  head of stock, 53 *et seq.*
  job analysis, 51
  psychiatric success, 68 *et seq.*
  section managers, 70 *et seq.*
  tests, 313
  (*see also* Placement)
Extroversion, 197 *et seq.*

Failures, causes, 8, 86, 111
  complex issues, 2 *et seq.*
  follow-up work, 216 *et seq.*
  job maladjustment cases, 25 *et seq.*
  means of studying, 11
  personality cases, 14 *et seq.*
  problem cases, 14 *et seq.*
  section manager, 79 *et seq.*
  survey, 139 *et seq.*
  types, 46
Foundation of Character, Shand, 193
Foundations of Personality, Meyerson, 193

Foundations of Psychiatry, White, 193, 205

Health work, 205
case studies, 160 *et seq.*
chronic hospital-users, 159
common problems, 158 *et seq.*
education program, 181
fatigue, 175
history, 188 *et seq.*
organic cases, 164 *et seq.*
psychiatric, 157 *et seq.*
sick-leave, 170
situation reaction, 172
Hopkins motor co-ordination test, 269
How to Measure in Education, McCall, 306, *note*

Industry, health work, 157 *et seq.*
promotional problems, 49 *et seq.*
work failures, 8 *et seq.*
youth attitude in, 106
Interviewer, 153 *et seq.*
employment, 183 *et seq.*
function, 183
intelligence study, 194
methods, 188 *et seq.*
motor characteristics study, 195
personal analysis, 187
personality study, 192
psychological tests, 210
requirements of successful, 185 *et seq.*, 214
self-expression studies, 197 *et seq.*
technique, 186
temperament study, 197
testing, 301
Introduction to Psychiatry, Henry, 205
Introversion, 197 *et seq.*

Job, adjustment, 11, 184
analysis, 51, 121 *et seq.*, 303
maladjustment cases, 25 *et seq.*
modifications, 133
nature of, 121
operations involved, 121
organization adequacy, 126
specifications, 143 *et seq.*
Job—(*Continued*)
survey, 108 *et seq.*

McGill University, xiv
Macy and Company, R. H., 51
Central Correspondence Division, 113
Medical department, 158
Mutual Aid Association, 159
Massachusetts Mental Hygiene Society, xix
Mental Hygiene, National Committee for, 193
Merchandise checkers, case studies, 92 *et seq.*
promoting, 87 *et seq.*
Merchandise-makers, functions, 122

National Dry Goods Association, xiv
National Safety Council Bulletin, 274
Number-filing test, 330

O'Connor finger-dexterity test, 329, *note*
Otis tests, 269, 316 *et seq.*
Outline of Psychiatry, White, 193, 205

Park, Charles F., on auto driver tests, 274 *et seq.*
Personnel, case studies, 145 *et seq.*, 260 *et seq.*
employment procedure, 111, 142, 149 *et seq.*, 222 *et seq.*
feeblemindedness, 204
home problems, 208
individual programs, 138
intelligence, 193
manic-depressive disorders, 202
motor characteristics, 194
nervous and mental disorders, 201
percentage treated, 46 *et seq.*
personality study, 25 *et seq.*, 206 *et seq.*
physical condition, 205
placement problems, 49 *et seq.*, 85 *et seq.*
problem cases, 14 *et seq.*, 138 *et seq.*
psychiatric staff, 10

Personnel—(*Continued*)
psycho-neuroses, 203
psychopathic disorders, 202
qualifications, 56, 143 *et seq.*
scope, 4 *et seq.*
self-expression, 197 *et seq.*
specialized qualities, 259 *et seq.*, 286 *et seq.*
survey, 108 *et seq.*
systematic grading, 131
temperament, 196
tests, 298 *et seq.*, 313 *et seq.*
types, 200
Personal Federation, xix
Pin test, 329
Placement, case studies, 92 *et seq.*, 141
department, 120
merchandise checkers, 87 *et seq.*
scientific, 85 *et seq.*
tests, 316
(*see also* Personnel)
Procedures in Employment Psychology, Bingham and Freyd, 306, *note*
Proteus maze test, 269
Psychiatric Guide for Employment, 145
Psychiatry, accomplishments, 46 *et seq.*, 216 *et seq.*
associated with the abnormal, 5
case studies, 58 *et seq.*, 73 *et seq.*, 92 *et seq.*, 114, 134 *et seq.*, 145 *et seq.*, 160 *et seq.*, 260 *et seq.*, 278, 281 *et seq.*, 296
executive selection success, 68 *et seq.*
failures problems, 8 *et seq.*
follow-up importance, 215 *et seq.*
health, 12, 157 *et seq.*
industrial, 5 *et seq.*
interviewers (*see* separate item)
job adjustment study, 11
mental examinations, 12
periodic analyses, 220
placement studies, 85 *et seq.*
problem cases, 13 *et seq.*, 25 *et seq.*
promotion investigation, 49 *et seq.*
Psychiatry—(*Continued*)
psychology and, 294 *et seq.*
record-keeping, 218 *et seq.*
social history, 10
staffs, 10
value, 47, 83, 105
Psychology, evaluated, 209 *et seq.*
in business, 294 *et seq.*
industrial value, 3
limitations, 185
study methods, 12

Salary adjustment, 120
Sales clerks, case studies, 223 *et seq.*
classified, 262
comparisons, 243 *et seq.*
employment procedure, 222 *et seq.*
maintaining high grade, 263 *et seq.*
personality, 222, 248 *et seq.*
psychiatric classification, 254
qualities of good, 224 *et seq.*, 242 *et seq.*, 255 *et seq.*
specified requirements, 303
Section managers, case studies, 73 *et seq.*
functions, 123 *et seq.*
job specifications, 70 *et seq.*
personnel qualifications, 72
Social Psychology, Alport, 193
Social Psychology, McDougall, 193
Stenography test, 334
Stock, head of, case studies, 58 *et seq.*
summary of duties, 53 *et seq.*
Success, criteria, 303
standards, 127
Supervision, survey importance, 129
Surveys, case studies, 134 *et seq.*
department, 115 *et seq.*
disinterested, 112
experiments, 113
health, 109
job, 108 *et seq.*
methods, 115 *et seq.*
morale, 110
procedure, 129 *et seq.*
products, 133
report, 132 *et seq.*

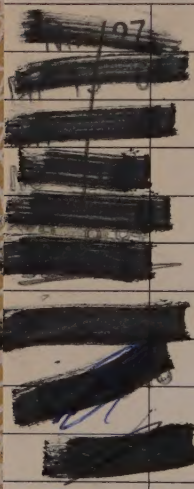
Surveys—(*Continued*)
sources, 127 *et seq.*
value, 108

Tests, arithmetic, 321 *et seq.*
automobile drivers', 269 *et seq.*
battery, 305 *et seq.*, 313
cards, 298, 301
cashiers, 306 *et seq.*
clinic, 296
development, 302
Downey's, 295
employment, 49 *et seq.*, 298 *et seq.*
equipment, 300
I. Q., 319
problem of choice, 310 *et seq.*
psychological, 294 *et seq.*
rating system, 312
reports, 302
Tests—(*Continued*)
samples, 339 *et seq.*
Seashore's, 295
time element, 305
types, 316 *et seq.*
T-I-A tests, 318, 320
T-13 test, 326
Thurstone clerical test, 331, *note*
Thurstone typing test, 332 *et seq*
Till test, 338
Toronto University, xix
Training, improvement, 155
Trait Book, The, Davenport, 193

Woodworth-Wells number-cancellation test, 324

Youth, attitude in industry, 106
placement studies, 87 *et seq.*
work failures, 86 *et seq.*

62 306Y P 70



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